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ABSTRACT

A project was conducted during 1974-76 to help meet the career awareness, orientation, and exploration needs of Native American youth in grades 7, 8, and 9. Activities included gathering information on Native American career education needs and surveying existing career education materials. Based on that information, twelve instructional units were designed and developed. Pilot testing took place in urban, semi-rural, and rural settings in California, Nevada, Arizona, and South Dakota; a third-party evaluation was conducted. Findings and recommendations include the following: (1) Native American tribes, parents, and students concerned perceive a need for career education; (2) materials written for Indian junior high school students should allow for poor language skills and should be relevant to students' cultural background; (3) the program tends to improve student ability in working with groups; (4) involvement in the program can give students an appreciation of their own culture, motivate participation in class activities, and broaden understanding of careers; (5) for optimal effectiveness, units should be integrated into the junior high school curriculum for its full three years; (6) the development of a training program for teachers and others involved in the program is strongly recommended; and (7) development of similar units for students in elementary and senior high schools is recommended. (Appendixes contain project materials and analyses of pre-posttest scores. The twelve instructional units are each available separately.) (TA)

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A FINAL REPORT

NATIVE AMERICAN CAREER EDUCATION PROJECT

Diana P. Studebaker

Bela H. Banathy

U.S. DEPARTMENT OF HEALTH, EDUCATION & WELFARE
NATIONAL INSTITUTE OF EDUCATION
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The project staff would like to express its gratitude to the following people and institutions for their assistance in testing and revising program materials: Bill and Carolyn Raymond of the National Indian Training and Research Center, Tempe, Arizona; Peggy Bowen of McDermitt Combined School, McDermitt, Nevada; Madlynn Pyeatt, Oakland Technical High School, Oakland, California; Paul Chilgren, Ganado Junior High School, Ganado, Arizona; Dr. Charles Herger and Pam Trotter of the Window Rock School System, Window Rock, Arizona; Art White, Phoenix Indian High School, Phoenix, Arizona; and all those who taught, learned from, or commented on the Native American Career Education materials.

ABSTRACT

This report describes the Native American Career Education project. This project was conducted during 1974-1976 at the Far West Laboratory for Educational Research and Development in San Francisco and was supported by a grant from the Office of Career Education. The project's purpose was to help meet the career awareness, orientation, and exploration needs of Native American youth in grades 7, 8, and 9.

The project began by gathering information on Native American career education needs and surveying existing career education materials. On the basis of this information, an instructional program was designed and developed. Formative evaluation measures for this program were planned and test arrangements negotiated, and pilot testing took place in urban, semi-rural, and rural settings in California, Nevada, Arizona, and South Dakota. An external evaluation of the program was also conducted by the National Indian Training and Research Center in Tempe, Arizona. Program materials were revised on the basis of evaluation findings. The nature and progress of the program and the project which produced it are presented in this report.

Project staff included both Indians and non-Indians, and development of materials was guided by an Advisory Committee of Indian educators and a mixed Technical Advisory Panel.

Products of the Native American Career Education project include:

- the State of the Art Study;
- Native American Career Education, A Curriculum Guide;
- twelve instructional units which include teacher and student materials and a test; and
- the Final Report.

The instructional program is divided into three levels. The Awareness level covers basic socio-economic and cultural concepts relevant to careers. The three Orientation units each address a single career area. Units at the Exploration level provide skills and knowledge students need to find out about careers that interest them.

In addition to conveying career information and development skills, the program is intended to promote positive self-concept among Indian youth. Its instructional approach is based on Native American educational methods, and the materials feature a heavy emphasis on Indian cultural elements and role-models. Recommended activities include small-group projects, readings and written exercises, role-playing, and use of community resources. The materials are designed for implementation as a separate course or fusion with

the regular junior high school curriculum. They can be used in urban, rural, or semi-rural settings, and in a variety of geographical and cultural areas.

Findings and recommendations which emerge from this project include the following:

- Native American tribes, parents, and students concerned perceive a need for career education;
- the program addresses a curriculum area which has not been previously covered;
- materials written for Indian junior high school students should allow for poor language skills, and they should be relevant to students' cultural background;
- many students have little experience in working in groups and need help to do so effectively, however the program tends to improve their abilities in this area;
- involvement in this program can give students a new appreciation of their own culture, motivate them to participate in class activities, and broaden their understanding of careers;
- formal field testing of the revised materials would be desirable;
- this program can be very successful with teachers who are sympathetic to its goals and instructional approach, however many teachers feel hesitant about trying it without training;
- for optimal effectiveness, units should be integrated into the junior high school curriculum over its full three years;
- the development of a training program for teachers and others to be involved in the program, therefore, is strongly recommended; and
- this program seems to be very attractive to schools seeking career education materials for Indian students--development of similar units for students in elementary and senior high schools is recommended.

Career education can increase the relevance of the regular school curriculum and provide students with the background to make meaningful career choices. It is especially important for Native American students to have this background, since in the past Indian economic development has been stunted, and Indians' career choice circumscribed. Although this project was completed in 1976, we hope that the program and this project report will be considered as a substantive beginning, and that the above recommendations for extension and expansion of this work will be implemented in the near future.

Foreword

It has been well established through Congressional action that Career Education is a necessary tool for preparing young individuals for career selection throughout America. It can further be stated that if educational programs have problems in adequately preparing students for career selection in the dominant American society, these problems will be magnified in Native American Communities. There appear to be many Career Education programs and materials for middle American citizens, and through the foresight of the U. S. Office of Education and Far West Laboratory, several years ago development of Career Education materials with input from Native American communities, educators, and students, was begun, resulting in the "Native American Career Education Program."

Through constant Indian feedback and input into the development of these units through the Native American Advisory Committee, these materials have been able to deal with two basic areas:

1. Learning and reinforcement of the contributions of traditional Native American cultures and careers,

2. Understanding of the importance of the traditional educational process and expansion of the scope and selection of careers available to students.

We anticipate that Native American students who use these materials will select careers at earlier ages and grades and pursue types of careers that will be beneficial and fulfilling to students and to their Native American communities.

It is hoped that the future of career education will include the training of personnel to adequately teach career education in Native American communities. It is further the wish of the Advisory Committee that schools educating Native American students will utilize these units, which have been thoughtfully and carefully designed, field tested, and revised, to the full benefit of students.

The Indian Education Advisory Committee:

George Effman
Betty Gress
Joy Hanley
Terrance Leonard
Lawrence Snake
Peter Soto (Chairman)
Bill Thacker
Webster Two Hawk
Lucille J. Watahomigie
George Woodard

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CHAPTER I NEEDS AND GOALS

Career Education for Indians--A Need Whose Time Has Come

In the long history of legal interaction between the U. S. Government and Indian tribes, the Indians have consistently requested that education for their children be part of the recompense for loss of their land. What they have asked for has not been education which will turn their children into white men, but education which will give them the tools to survive in the white man's world. The government's attempts to meet that need have met with limited success.

Throughout the latter part of the nineteenth century and the first half of this one, Indian education in the boarding schools to which most Indian students who attended school were sent was...

> ...characterized by harsh discipline, military drill, use of cast-off army clothing, self-support from farm and herd, rural vocational training unrelated to employment on the reservations or in the cities, and purposeful separation of the children from home and family.[1]

This is not surprising, since the stated goal of these schools was to "...provide the needed development and supply the lacks caused by a faulty environment...The task is changing a way of living."[2]

However the product of this approach to Indian education were men and women who were prepared neither for life on the reservations or off of it. Those few who did succeed in acculutrating did so by denying their Indian heritage and suffered the consequent psychological stress.
Only in recent years has the dominant culture come to recognize the strength and value of that heritage, and only recently have those responsible for the education of Indians been willing to ask Indian tribes and communities what they believe Indian education should be.

The consensus seems to be that there are two main problems with curricula available for use by Indian students. The first is that they lack cultural relevance. The second could be called a lack of socio-economic relevance--e.g., usefulness in terms of the social and economic problems facing Indians today.

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1 McKinley, Nimnicht, Bayne, Who Should Control Indian Education? Berkeley, California: Far West Laboratory for Educational Research and Development (1970), p. 7.

2 Ibid.

As McKinley, Bayne, and Nimnicht pointed out in their classic study, Who Should Control Indian Education?,

> The American Indian child differs from his white counterpart in many ways other than skin color. Cultural differences are more complex, more difficult to understand, and far more difficult to deal with than physical differences. Yet educators and administrators on reservations must have an understanding of these cultural differences and their origins in order to develop appropriate educational programs.[3]

This is also true, of course, in city schools with Indian students.

The Indian students is understandably unwilling or unable to learn from materials which deny his existence or worth. Too often, he is caught between two cultures and is unable to profit from a curriculum designed for non-Indian children. As a result he concludes that he is at fault, or begins to accept the stereotypes of the non-Indian majority.

The socio-economic needs of Indian communities can perhaps be best described by quoting the policy statement prepared by the project's Indian advisory committee:

> ...the needs of the Native American communities differ greatly from the greater American society, language and cultural beliefs. Governmental systems are separate and different from surrounding states and the non-Indian community. Conditions on Indian communities and reservations might best be identified as comparable to conditions in many underdeveloped countries. These countries, as do Indian communities, have many common problems such as high illiteracy, health problems which result in short life spans, high unemployment, and lack of economic development to support the livelihood of the people. In these countries, as in Indian communities, the problem is not due to a lack of natural resources, but a lack of meaningful development of human resources in order to begin the process of economic development. Many Tribal groups have realized the need to develop long-range economic plans that will lead toward self-determination and independence, but there is now a need to develop their human resources that will make the economic plans fo the Tribal group a reality. With this in mind there is a need to identify the various professions, skills and trades that will be needed to fulfill the long-range economic plans of the Tribal groups or to accommodate the economic trends of Indian communities.[4]

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3 McKinley, Nimnicht, Bayne, op. cit., p. 10.

4 Indian Education Advisory Committee, December 11, 1974.

In recent years, Indian communities have taken an increasingly active role in the education of their children. Indian school boards are being elected. Tribal governments and urban Indian centers have established educational programs and developed bicultural (and sometimes bi-lingual) curricula designed to meet their childrens' needs. But while this development has addressed such areas as tribal culture and reading, there has been little development in an area identified as being of overwhelming importance by both Indian parents and students--career education.

The Navajo tribe has recently completed a needs assessment of its people in which preparation for jobs was identified as a primary goal. Similar studies have been conducted by other tribes. The schools are trying to respond to this need by starting career education programs, but they are often hampered by lack of materials, or more specifically, by lack of materials which will be meaningful to their students. Since this project began, we have received numerous letters from such schools begging for materials.

This concern is shared by the students themselves. In a group of essays about future plans, Indian students indicated that good jobs were one of their primary goals.[5] A study by H. Thompson showed that American Indian adolescents were twice as concerned as other adolescents about learning what jobs are available and how to get them.[6] A study on the Apache reservation indicated that children are deeply disturbed by the conflict between their desire to find a good job and their desire to stay on the reservation, where jobs are scarce.[7]

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[5] E. E. Hoyt, "An approach to the Mind of the Young Indian," Journal of American Indian Education, January, 1961.

[6] H. Thompson, et al. Education for Cross-Cultural Enrichment, Lawrence, Kansas: Haskell Institute, 1964.

[7] L. C. Bernardoni, "Apache Parents and Their Vocational Choice," Journal of American Indian Education, August, 1968.

The State of the Art study performed as a part of this project (see Section IV) has confirmed that the number of career education programs or materials specifically designed for American Indians is small. Of those that exist, some, such as the ones at Haskell Indian Junior College or Southwest Indian Polytechnic Institute, are aimed at post-secondary or adult students. Others, such as the Hopi Health Careers Program, were developed for one specific tribe, or present specific career areas, such as the Navajo Forest Industries and Woods Operations slide-tapes developed by the Apache-Navajo Career Education Resources Center. Little guidance on how to integrate career education materials (whether written for Indians or not) into an Indian school is available.

Obviously there is a need for Career Education materials at all educational levels, but if there is one level at which it is more lacking than the others, it is the Junior High School. At this age, students are beginning to imagine themselves in adult roles, but have not yet decided on a career goal (or given up hope of achieving one). Their need is not for training in specific career areas, but for understanding of the nature and implications of careers, the context within which careers exist, their relationship to each other, and for skills which they can use to explore careers for themselves.

Goals and Objectives of Native American Career Education

In response to the needs described in the preceding section, the Native American Career Education project was funded to design, develop, and test a program of study for American Indian youth, grades 7 to 9, that would integrate traditional academic curriculum with career awareness, exploration and orientation. Native American students were to be introduced to a broad spectrum of occupational opportunities which would help them to develop (1) increased self-awareness, (2) an awareness of the world of work and careers, and (3) the knowledge to make rational choices among careers based on individual interest. With such awareness and capability, it was felt that Indian students would be able to plan their own further educational programs and career explorations.

On the basis of this mandate, specific program objectives were developed in the areas of awareness, orientation, and exploration in the content domains of knowledge and mastery of self, social development, occupational and economic development, and vocational development. These objectives are displayed in the Curriculum Map in Appendix A of this report.

The areas of Awareness, Orientation, and Exploration constitute the first three phases of career development. They also reflect the basic structure of our program, which includes units in each of the three areas. Development in these areas is normally followed by Career Preparation, in which the learner trains for the career he or she has learned how to choose intelligently.

The goals of the Awareness part of the curriculum, corresponding to the first stage of career development, are to provide information and experiences by which the learner will:

1. become more self-aware;
2. become more (and more positively) aware of his or her own culture;
3. become more socially aware;
4. become more aware of the world of work and its economic implications; and,
5. develop wholesome attitudes toward work, including respect and appreciation for those who do it.

The goals of the orientation part of the curriculum are to build upon the development of awareness and provide information and experiences by which the learner will:

1. gain an understanding of himself/herself and his/her relationship to career roles;
2. understand the value of a culture to society and to the individuals involved in it;
3. understand the individual's responsibility toward others and toward society;
4. become familiar with occupational classifications and clusters, labor market conditions, and educational and training requirements; and,
5. understand the economic implications of various career paths.

The goals of the Exploration part of the curriculum, corresponding to the third stage of career development, are to lead the learner directly into the world of careers and provide information and experiences by which he or she will.

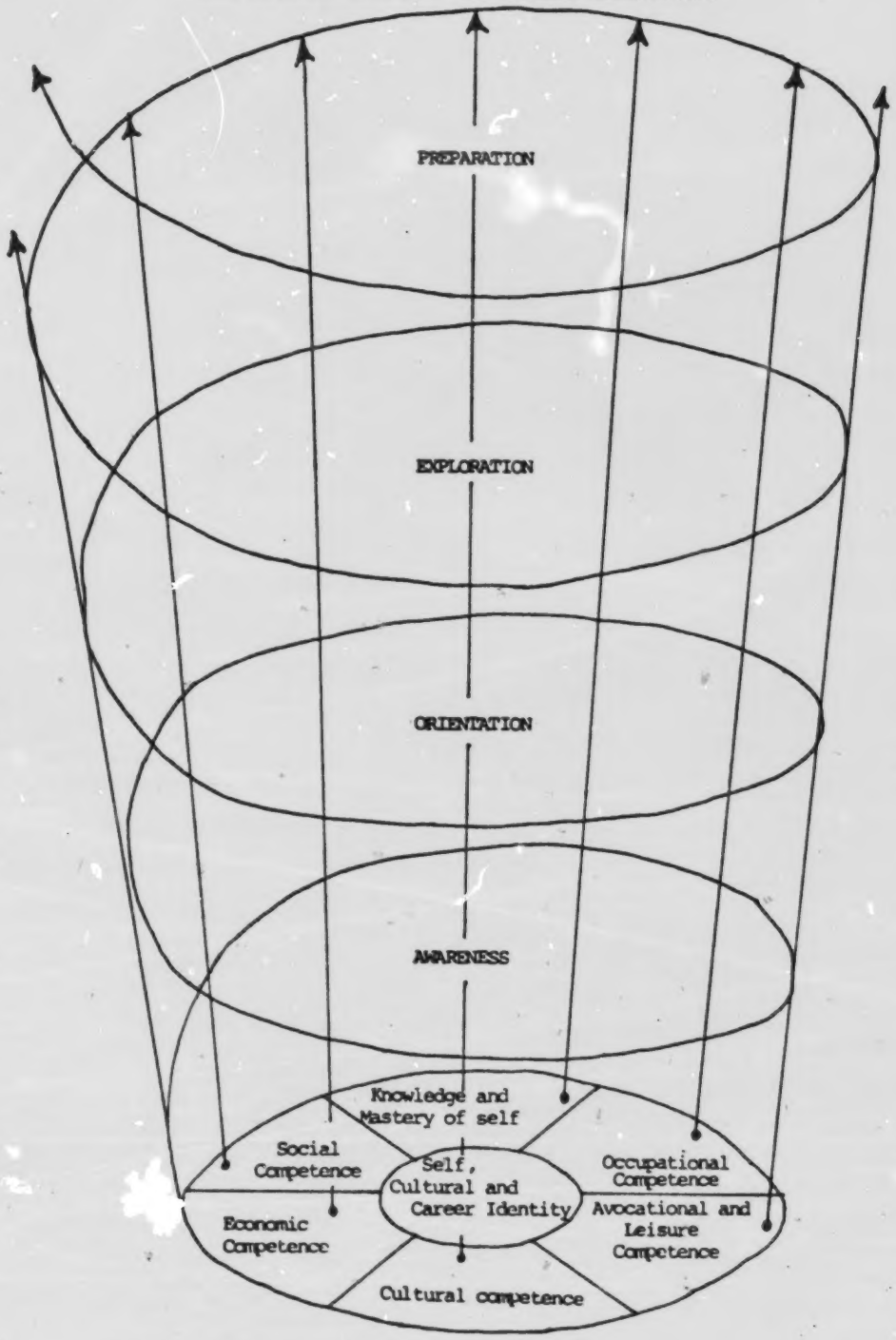
1. use information about self in career path planning and in assessing career relevance and career satisfaction;
2. explore his or her place and future in the cultural community;
3. develop social competence in cooperating with others while accomplishing tasks;
4. explore selected occupational clusters and develop competence in occupational planning and decision-making skills; and,
5. gain competence as a consumer and in handling economic affairs.

A period of career preparation, which was not addressed by this project, normally follows the exploration stage. In this period the individual should acquire occupational skills and the knowledge needed to enter a selected field or career.

The figure presented on the next page "The Spiral Concept of Career Education," shows how, as the learner moves from career awareness through orientation and exploration, he/she becomes more knowledgeable and competent in dealing with self, others, and the world of careers.

FIGURE 1

THE SPIRAL CONCEPT OF CAREER EDUCATION



CHAPTER II PROJECT HISTORY

Summary of Major Events

1st Quarter: July - September, 1974

State of the Art Study commenced

Project Consortium constituted (July 22)

Members nominated for Indian Education Advisory Committee (IEAC)

Technical Advisory Committee (TAP) members chosen, received and responded to project information and working papers

Identification of potential field test sites begun

Preliminary version of Career goal matrix developed and sent to TAP for review

2nd Quarter: October - December, 1974

First draft of State of the Art Study completed

IEAC committee members chosen; first meeting (November 25-26) in conjunction with meeting of TAP

Pilot test arrangements made at 6 potential sites

Preliminary curriculum design completed

3rd Quarter: January - March, 1975

Curriculum design and development specifications for instructional units completed

Preliminary form of first unit completed, development of three in progress

Development of evaluation instruments begun

State of the Art Study completed, sent to IEAC TAP for review

RFP for Third Party Evaluator developed and sent to three Native American educational agencies

IEAC meeting (January 20-21)

Completed unit sent to IEAC for review

Project Coordinator visited potential field test sites

Developer attended Career Education in Phoenix and visited field test site

4th Quarter: April - June, 1975

Curriculum design reviewed by IEAC & TAP and revised

Four units completed, four more in progress, specifications for last four revised

Pilot test arrangements for Fall semester begun

IEAC subcommittee met with Project Director and advised on selection of Third Party Evaluator, contract negotiated with National Indian Training and Research Center (NITRC)

TAP Meeting (May 28-29) reviewed curriculum design and units

5th Quarter: July - September, 1975

Six units completed, four revised on basis of review, three being edited, three in progress

Pilot test arrangements completed for Oakland, Phoenix Indian High School (PIHS), Ganado, Window Rock, and McDermitt

Development of evaluation instruments completed

Teacher Training Workshop held at FWL (August 4-7)

NITRC awarded contract as Third Party Evaluator

IEAC meeting (September 30 - October 1)

6th Quarter: October - December, 1975

Request for extension of project submitted

Development of remaining units completed

Curriculum Guide written

Pilot testing took place at Oakland, PIHS, Ganado, and McDermitt

Teacher training workshop held at Window Rock (November 12-13)

7th Quarter: January - March, 1976

Pilot testing continued at Oakland, PIHS and Ganado, began at Window Rock

NITRC began review of materials

State of the Art Study revised

8th Quarter: April - June, 1976

Sr. Developer visited pilot test sites in Arizona, attended Indian Education conference

Pilot testing continued at Oakland, PIHS, Ganado, Window Rock; began at Oraibi, St. Francis S. D.

NITRC began pilot testing

Meeting of project staff with chairman of IEAC (June 15-16)

9th Quarter: July - September, 1976

Analysis of pilot test results begun

Revision of units began

Arrangements for pilot testing of remaining units made

NITRC field test continued

10th Quarter: October -December, 1976

Pilot testing at Ganado, Window Rock and McDermitt; begun at Hoopa

Analysis of pilot test results continued, revision specifications made

Revision of units and Curriculum Guide completed

Final meeting of IEAC (November 8)

Dissemination plans for materials explored

NITRC final report received

Activities in 1977

Printing of revised materials
Final Report written
Dissemination plans completed
Principal Investigator visited Bill Berndt, Project Officer, and Ned Logan

Project Personnel

During the first year of the project, project staff performed tasks required to establish an Information/Knowledge base, ascertain needs of American Indian youth, and design a curriculum to meet those needs. During the second year, a curriculum was developed and testing of it began. The third year saw the completion of testing, analysis and interpretation of data, revision of curriculum materials into final form, and preparation of the final report.

The Project Office for the Office of Education was Dr. William Berndt.

The Principal Investigator for the project was Dr. Bela H. Banathy, Director of the Instructional and Training Systems Program at Far West Laboratory.

Project Staff Members

First Year--Geraldine E. S. Williams (Tlingit): Project Coordinator
Gregory P. Otto: Senior Developer
Laird Blackwell: Senior Evaluator
Saundra Schaulis: Curriculum Specialist
Rita Fernandez (Mescalero): Information Specialist, Developer
Diana P. Studebaker: Developer
Sharon K. Quickbear (Sioux): Project Secretary, Development Trainee

Second Year--Donald A. McCabe (Navajo): Project Director
Diana P. Studebaker: Senior Developer
Laird Blackwell: Senior Evaluator
Sharon K. Quickbear: Development Trainee
Cathy Coe: Developer
Lisa Hamilton: Editor, Developer
Will Dunne: Senior Editor
Linda Silver: Project Secretary
Dan Chrynko: Graphics

Third Year-- Donald A. McCabe: Project Director
Diana P. Studebaker: Senior Developer
Laird Blackwell: Senior Evaluator
Lisa Hamilton: Editor
Juliette Van: Secretary

The Indian Education Advisory Committee (IEAC)

The IEAC's contributions to the project included policy guidelines, cultural validation, review of materials, and dissemination advice.

Chairman: Mr. Peter Soto (Cocopa)	Deputy Assistant Area Director (Education), Bureau of Indian Affairs, Phoenix, Arizona
Mr. George Effman (Klamath/ Karok)	Director, Indian Alchoholism Commission of California, Sacramento, California
Mrs. Betty Gress (Mandan/ Hidatsa)	Associate Director, Coalition of Indian-Controlled School Boards, Denver, Colorado
Mrs. Joy Hanley (Navajo)	Director, Analysis and Evaluation, Navajo Division of Education, Navajo Tribe, Window Rock, Arizona
Mr. Terrance Leonard (Pima-Navajo)	Director of Indian Education, Arizona State Department of Education, Phoenix, Arizona
Mr. Lawrence Snake (Delaware)	Chairman, Inter-tribal Council, Midwest City, Okalhoma
Mr. William Thacker (Paiute)	Inter-tribal Council of Nevada, Owyhee, Nevada
Mr. Webster Two Hawk (Rosebud Sioux)	Rosebud Public Health Hospital, Rosebud, South Dakota
Mrs. Lucille J. Watahomigie (Hualapai)	Director, Hualapai Bi-lingual Education Program, Haulapai Tribe, Peach Springs, Arizona
Mr. George Woodard (Sioux/ Menominee)	President, American Indian Council of Santa Clara County, Inc., San Jose, California
*Mr. Rudy Clements (Warm Springs)	Manager, Municipal Branch, Confederated Tribes, Warm Springs, Oregon
*Mr. Robert Louis (Zuni)	Governor, Zuni Pueblo

* served first year only

The Technical Advisory Panel (TAP)

The Technical Advisory Panel provided technical assistance to the project. Its members were:

Dr. Kenneth Ross (Sioux)	Superintendent, Window Rock School District, Window Rock, Arizona
Dr. Richard Ruff	Arizona Department of Education, Phoenix, Arizona
Mr. William Dae (White Mountain Apache)	American Indian Education Unit, California Department of Education, Sacramento, California
Mr. Buster McCurtain (Chickasaw)	Principal, Hoopa Elementary School, Hoopa, California
Mrs. Louise Miller (Yurok)	Education Specialist, Bureau of Indian Affairs, Sacramento, California
Mr. Paul N. Peters	Manager Career Education Task Force, California State Department of Education, Sacramento, California
Dr. Austin Haddock	Nevada State Department of Education, Carson City, Nevada
Mr. Mahlon Marshall (Hoopa)	Principal, McDermitt Combined School, McDermitt, Nevada
Mr. Herb Steffens	Associate Superintendent, Nevada State Department of Education, Carson City, Nevada
Dr. David Burch	Associate Education Director, Phoenix Area Office, Bureau of Indian Affairs, Phoenix, Arizona
Dr. Frank N. Hall	Education Specialist, Bureau of Indian Affairs, Albuquerque, New Mexico

External Evaluators

An external evaluation of the project was conducted by the National Indian Training and Research Center (NITRC) in Tempe, Arizona. NITRC staff included:

Dr. Francis McKinley (Ute)	Project Director
Dr. William Raymond	Site Consultant, Technical Reviewer, Data Analyzer
Dr. Carolyn Raymond	Planning Consultant, Manual Writer, Data Collection, Technical Reviewer, Writer of final report
Mr. Wayne Pratt	Site Coordinator

Key personnel from schools participating in the field test

Testing and revisions of the Native American Career Education Curriculum would not have been possible without the special assistance and enthusiasms of the following people

Ms. Peggy Bowen	8th Grade Teacher and Field Test Coordinator, McDermitt Combined School, McDermitt, Nevada
Mrs. Madlyn Pyeatt (Cherokee)	Opportunity Class Teacher, Oakland Technical High School, Oakland, California
Mr. Paul Chilgren	Counselor and Field Test Coordinator, Ganado Junior High School, Ganado, Arizona
Dr. Charles Herger	Principal, Window Rock High School, Window Rock, Arizona
Mrs. Pam Trotter	Curriculum Coordinator, Window Rock School District, Window Rock, Arizona
Mr. Art White,	7th & 8th Grade Teacher, Phoenix Indian High School, Phoenix, Arizona

We would also like to acknowledge the contributions of all those who taught, learned from, or commented on these materials.

Narrative of Project Activities

Phase I: Research, Analysis, and Design

The research on which the original project proposal was based established the need for Career Education for Native American Youth, and suggested the form such a curriculum might take. However, before actual curriculum development could begin, considerable specific information was needed. Obtaining it, analyzing it, using it to develop a curriculum design, and making preparations for later tasks was the objective of the first phase of project activity.

To design a Native American Career Education curriculum, three kinds of information were needed: (1) information on existing Career Education materials and strategies, especially for Native Americans; (2) information on Native American Career Education needs; and (3) information on Native American cultural elements relevant to Career Education content and instructional strategies.

1. Career Education

The first task addressed was to perform a state of the art study on Career Education curricula, with particular focus on any which were developed for Native American students. It was hoped that this effort would produce a list of materials which could be adopted as part of a Native American Career Education program; adapted for use in such a program; or serve as a source of concepts, content, and instructional strategies to use in creating new materials.

Accordingly, staff performed an extensive literature search in this areas, and obtained copies of or accounts of numerous Career Education products and programs. The results of this study appear in the State of the Art Study, which is described in Chapter III of this Report.

In fact, the study showed that there was even less career education material intended for Native American students than had been expected. No materials were found which specifically addressed the Career Awareness, orientation, and exploration needs of Indian Junior High School students. It was not, therefore, possible to adopt any materials into the program.

An analysis of the materials collected showed that most of them were intended for target audiences with very different backgrounds and school

resources than the students for which this program was being developed. The typical Career Education program seemed to assume a student who was white, middle-class, and came from an urban or suburban area. Schools were expected to have or have access to a wide variety of print and other resources, and be able to make contact with people in a variety of businesses and industries.

It began to seem probable, therefore, that the only way pre-existing Career Education materials identified in the study could be used, would be as a source of facts and ideas, and for certain specific games and other learning activities which could be adapted. Two programs which were identified as being potentially useful in this regard were the AIR Career Education Program and the R-3 program developed by the San Jose City School District.

2. Needs Analysis

Information on Native American Career Education needs and goals was gathered in a number of ways. These included questioning Indian students and their teachers, and talking to Indian community members and those familiar with them. The project's Indian Advisory Committee was particularly valuable in this activity in guiding, commenting, and suggesting sources of information to project staff.

Analysis of the information so gathered indicated that Indian students were very interested in getting good jobs, and their parents were equally concerned for their futures. They did not, however, appear to have much knowledge of the breadth of career opportunities which exist. Parents and community people were also rather disillusioned with programs and people who attempted to tell Indians what kinds of jobs they should aim for without considering their relevance to actual Indian cultural and economic needs.

The significance of this to the project was to indicate that since Indians live in a variety of settings, all of which have different resources and economic development needs, the materials would have to be flexible, they would have to focus on teaching students to understand economic processes and use skills which would enable them to find out about careers that they decided were important. Three specific career areas which Indian newspapers and other sources indicated were of general interest were selected to serve as the subjects of model career orientation units. Schools would be encouraged to develop other, similar units on areas identified as important by their local communities.

3. Cultural Relevance

Information on Native American needs and goals governed basic program design, and served as a basis for organizing and selecting the content for the curriculum. However, in order to identify the instructional strategies which would be most appropriate and effective with Indian students, a different kind of information was needed.

Therefore, much of the latter part of Phase I was devoted to research in such areas as traditional Native American methods of instruction, studies of learning characteristics of Indian children, and information on traditional Indian economies which could be used to illustrate basic economic concepts and provide a bridge between Indian and dominant American culture. This effort also served to give project staff a better understanding of and sensitivity to Indian culture.

Answers were needed to such questions as what an appropriate reading level for Indian students in a Junior High School would be; whether they were likely to respond best to oral or written instruction; to working as a class, as individuals, or in small groups; whether games or simulation exercises would be useful; and so forth. Less dependable information on these points was located than staff members would have liked, but what was obtained served as the basis for selection of the instructional approach and methods.

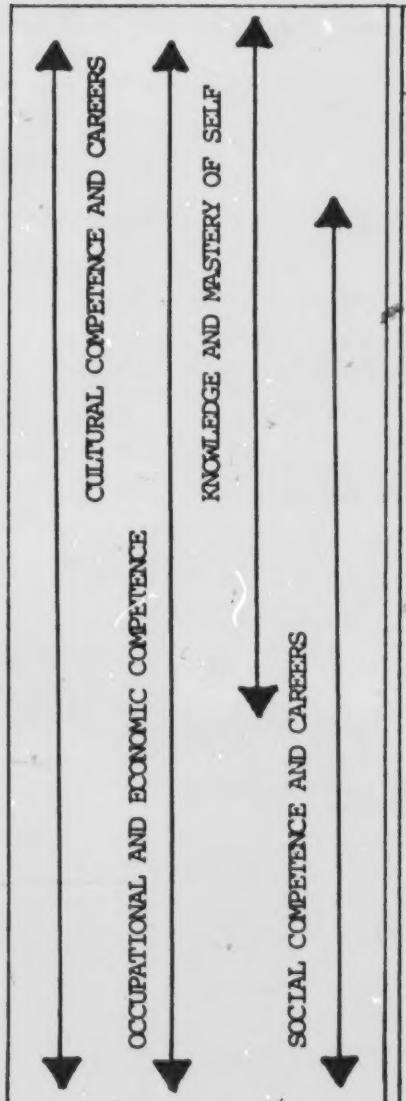
Information on traditional and contemporary Indian culture was sought so that as many as possible of the examples of economic functions or specific jobs in the units would be specifically Indian. Providing Indian role models and emphasizing the value of traditional Indian ways would be an essential tool for building a healthy self-concept which was one of the needs which had been identified.

The information which was eventually gathered was organized into a number of basic concepts and guidelines. These are included in the Curriculum Guide to the program, which is described in Chapter III.

Outcomes of Phase I

In addition to the State of the Art Study, Phase I produced a curriculum map upon which Career Awareness, Orientation, and Exploration goals identified by the Needs Analysis were arranged into content domains (Appendix A), and

FIGURE 2. CURRICULUM DESIGN


CULTURAL COMPETENCE AND CAREERS
OCCUPATIONAL AND ECONOMIC COMPETENCE
KNOWLEDGE AND MASTERY OF SELF
SOCIAL COMPETENCE AND CAREERS

AWARENESS	ORIENTATION	EXPLORATION
Unit 1: "Part of the Whole World: (Cultural awareness, economy aspect of culture)		Unit 9: "Planning" (self-analysis, group and personal planning)
Unit 2: "Cooperation" (values, conflict resolution, preparation for group work)	Unit 6: "Putting Your Money to Work" (Managing financial resources for family and small business, money-handling skills)	Unit 10: "Putting It All Together" (Career clusters and their relationships, values, aptitudes, and career choice)
Unit 3: "From Idea to Product" (analysis of tasks, basic stages in product manufacture)		Unit 11: "Getting Ready For Jobs" (levels within job areas, identifying training requirements)
Unit 4: "The Community" (how community economy meets basic needs)	Unit 7: "Living with the Land" (Managing natural resources to meet community needs, and associated careers)	
Unit 5: "The Community in Transition" (cultural and economic changes and survivals as technology and resources change)	Unit 8: "Working for the People" (U.S. & Indian government structures and careers, and how governments manage community resources to meet needs)	Unit 12: "The Career Fair" (researching specific jobs and career clusters, working with group to plan and put on career fair)

a curriculum design which described the twelve units which were to be developed. These descriptions, arranged according to level (Awareness, Orientation, or Exploration) appear in Figure 2.

All of these items underwent a conceptual testing process that included review by project staff, the Technical Advisory Panel, and the Indian Education Advisory Committee.

Phase II: Development

The actual process of writing and producing the instructional units began in the spring of 1975. This phase involved the largest number of staff members working at one time, and the greatest administrative involvement.

The effort involved was much greater than had originally been anticipated due to the paucity of materials which could be adapted and the lack of support resources found to be available to the target schools. The decision was made to include all materials required to use a unit within its covers, since availability of even such items as encyclopedias could not be assumed for all schools which might use the program. Desirable activities which depended on other resources were to be included as options. Since the units were being designed for use separately as well as together, the decision was made to provide individual lists of possible audio-visual resources for each unit.

The first unit to be developed, "Part of the Whole World," served as a model for the others in terms of format and instructional approach. Each of the developers prepared a plan for the unit or units assigned him or her, and presented it to the Director, Senior Developer and other staff members for comment.

After review and revision, the plan served as a basis for development of the unit, which also underwent staff review before being submitted to the Advisory Committee and others outside the project. The comments of teachers who were or were about to be involved in field testing were particularly valuable.

As information on the first units to be developed was received, specifications for later ones were revised as well, so that the final units in the series had the benefit not only of the usual review process, but of the evaluation of the earlier units.

The final activity in the Development phase was the writing of the Curriculum Guide to the entire program. This Guide included not only information on the units and their use, but the results of research and analysis activities that had taken place during Phase I.

Outcomes of Phase II

Phase II of the project produced twelve instructional units and the Curriculum Guide. These products are described in detail in Chapter III.

The twelve instructional units produced were:

Part of the Whole World
Cooperation
From Idea to Product
The Community
The Community in Transition
Putting Your Money to Work
Living with the Land
Working for the People
Planning
Putting in all Together
Getting Ready for Jobs
The Career Fair

Phase III: Testing and Revision

Preparation

Many of the tasks pre-requisite to this phase were performed during Phases I and II. These include identification potential of pilot test sites and negotiation of arrangements. Identification of test sites was begun in 1974 when the Principal Investigator travelled extensively in Arizona, and continued during the rest of the project as evaluation needs changed. Pilot test arrangements also had to be made and re-made as the extended development schedule forced changes in the testing time-frame, and as the capabilities of the various schools altered due to changes in their own organizations and personnel.

Conceptualization of the role of the third party evaluator was also an early activity, followed by preparation of the RFP, negotiation, and final selection of the National Indian Training and Research Center (NITRC) to perform this task.

The Needs Analysis and research activities which took place in Phase I identified three main types of school and school setting characteristic of schools serving Indian youth. These were: urban public schools, state public schools, and Bureau of Indian Affairs schools; located in urban, semi-rural and isolated rural areas. Since the program was intended for use in all schools serving Indian children, it was necessary to test it in schools of all these types. Time limitations prevented the testing of all twelve units in each setting, however enough units were tested in each so that any problems with approach, resources, level, etc. could be identified and the results applied to the others.

An analysis of the numbers of students from each type of setting involved in testing units appears in Figure 3.

The program, as designed, would be spread out over the three junior high school grades. However, the project schedule required that all units be tested within one year so that revision could be completed before the project's end. This necessity for haste was a handicap which would not exist in an operational situation.

Teacher Workshops

Two workshops for teachers involved in the pilot test were conducted at the beginning of this phase. The first was held at Far West Laboratory in August, 1975 and included teachers from Oakland, McDermitt, Phoenix Indian School, and Ganado. Teachers were oriented to program content and approach and evaluation procedures. They also reviewed and commented on the first three units. Revision of these units was therefore done before they were used in the field test during the fall semester.

The second workshop was held at Window Rock, Arizona in November of that year. It was attended by teachers from McDermitt, and administrators from McDermitt, Phoenix, Ganado, and Window Rock. Ms. Peggy Bowen of McDermitt was particularly helpful during this workshop, as she had already begun testing some of the units and was able to discuss them from a user's point of view. The workshop covered unit content and approach, evaluation procedures, and implementation options for the schools involved.

Pilot Testing

The Far West Laboratory Pilot Test

Pilot testing arranged by the project began in fall of 1975. The NITRC evaluation began in 1976. An analysis of which units were tested at which sites appears in Figure 4.

Units in the program were tested at the following sites: The Oakland Indian Center and Oakland Technical High School, Oakland, California; Hoopa Elementary School, Hoopa, California; McDermitt Combined School, McDermitt, Nevada; Ganado Junior High School, Ganado, Arizona; Fort Defiance Junior High School, Window Rock, Arizona; Window Rock High School; Hopi Health Careers Project, Oraibi, Arizona; Phoenix Indian High School, Phoenix, Arizona; and St. Francis Indian School, St. Francis, South Dakota.

1. Oakland

This was the program's most typical urban test site. Testing began at the Oakland Urban Indian Center drop-in class in the summer of 1975. This was a summer program for the inner-city Indian youths and was voluntary. Teacher Madlynn Pyeatt (Cherokee) reported that students found materials interesting and showed some significant attitude changes.

She began again when the fall semester opened at Oakland Technical High School, where arrangements had been made to set up a special "Native American Opportunity" class. In addition to the Indian students at this school, Indian students from other school areas were brought to Oakland Tech. to attend the class. Several of them came from the drop-in Center. This class was, of course, multi-tribal.

The basic purpose of the class as defined by the school was to provide students who might otherwise drop out with a motive for remaining. The class was held for two hours a day in a "temporary" bungalow which students were also given the task of renovating. In addition to and sometimes via the career education content, students were working for credit in English and Social Studies.

Mrs. Pyeatt had access to many audio-visual materials, and provided a variety of supplementary activities as well as being able to individualize units to meet students' personal and academic needs. During the school year the class used 4 units, finishing with a field trip to the Sierras.

2. Hoopa Elementary School

This school is a school located on the Hoopa reservation in Northern California, and is rather isolated. Two units were tested there in the fall of 1976 in Junior High classes responsible for covering all subjects.

3. McDermitt Combined School

McDermitt is an excellent example of an isolated rural school. Part of the Nevada State System is located in northern Nevada, approximately a hundred miles from the nearest town. The school serves primarily Paiute children, although there are a certain number of children from Basque and other non-Indian families there as well.

Testing began there in the fall of 1975 in two classes. The 7th grade class was taught by Miss Alice Byrd and the 8th grade by Miss Peggy Bowen, field test coordinator at the site. Miss Bowen had used the Rocky Mountain career education program with the same class the previous year, and reported that she had to overcome a certain amount of prejudice against career education as a result before beginning these units. Both of these classes occupied two hours a day, and covered both English and Social Studies content. These two classes tested 3 units during the fall semester.

During the spring of 1976, one unit was used in a science class, and part of another in Miss Bowen's class. An additional 3 units were used during the fall of 1976. The information collected by Miss Bowen was extremely valuable.

4. Ganado Jr. High School

This school is a part of the Arizona State System, and is located in the small town of Ganado, on the Navajo reservation. There are a few non-Indian students in the school as well. A certain amount of difficulty was encountered in getting testing started at this site, but counselor Paul Chilgren, who was also responsible for the career education class, was able to begin with one unit at the end of the fall, 1975 semester. During the spring semester (1976) it was decided to use that unit ("Cooperation") with all five 8th grade English classes, the career education class, and a social studies class, and an additional four units were used in other subject classes. One unit was tested during the fall of 1976. The spring career education class (multi-grade) was taught by a Navajo student teacher, Ida Provorse, who had many excellent ideas for adapting it to their needs. This test site provided excellent evaluation information.

5. The Window Rock School System

Window Rock is the capital of the Navajo Nation. In addition to being the site of the tribal and other government offices, there are a number of businesses and industries in the area. Its schools, therefore, should be classed as semi-rural. With the exception of a few non-Indian students, the students are Navajo, ranging from very traditional to very acculturated in background.

Three units were tested in three seventh grade classes taught by Letty Nave (Navajo) in the spring of 1976. One of these classes happened to consist of mostly Navajo-speakers, so she taught the career education materials in that language.

In the fall of 1976 the project contacted Dr. Charles Herger, the new High School principal about further testing. Dr. Herger had worked with the Career Education program at Appalachian Educational Laboratory, and was highly enthusiastic about incorporating the materials into his 9th grade career education class. The last four units were used.

6. Hopi Health Careers Project

This project has offices in New Oraibi, below Third Mesa on the Hopi reservation. Its primary emphasis is on secondary and post-secondary health career training, but has been expanding into more general Career Education in earlier grades. Coordinator Larry Etnire arranged for two units to be used in a Bureau of Indian Affairs Jr. High class and a church school working with their project. Oraibi should be considered a rural isolated area.

7. Phoenix Indian High School (PIHS)

PIHS Is a Bureau of Indian Affairs boarding school covering Junior and Senior High School. The student body is multi-tribal, drawn mostly from southwestern tribes, although tribes from other areas are represented as well. Most of the students are from very rural areas which don't have their own schools, however the school itself is located in the middle of a big city. Four units were tested by teacher Art White in his 8th grade social studies class during the 1975-76 school year.

8. St. Francis Indian School

St. Francis is a former BIA school which is now community controlled. It is located in a rural area, and serves Sioux students. One unit was used by the Indian culture class at the school at the end of the spring, 1976 semester.

The National Indian Training and Research Center (NITRC) External Evaluation

As a part of their external evaluation of the program, NITRC conducted a pilot test in the following schools in the southern Arizona area: Santa Rosa Boarding School; Sacaton Public School, Southwest Indian School during the spring 1976 semester, and the Mesa Unified School District #4 (during summer of 1976).

1. Santa Rosa Boarding School

The Santa Rosa Boarding School is located on the Papago Indian Reservation, which is the second largest reservation in Arizona. This is a Bureau of Indian Affairs School, and although it is in a very rural area has recently

moved into a very modern and well-equipped plant. The school serves approximately 450 Papago Indian students in grades K-8. The first five units were used in several classes at this school.

2. Sacaton Public School

This is an Arizona state school located on the Gila River reservation and is very isolated. All of the students are Pima. The school has about 900 students and covers grades K-8. Five units were used at this school.

3. Southwest Indian School

The Southwest Indian School is a church-related school located in Glendale, Arizona. Its students come from all Indian tribes in the southwest, from families which want them to have a religiously oriented education. It is a boarding school with approximately 250 students in first through 8th grades. While some curriculum materials were provided, due to a scheduling problem this school was only slightly involved in the pilot test.

4. Mesa Unified School District #4

This is a public school district in the third largest city in Arizona. Its 30,000 students include approximately 900 Indians from the Fort McDowell (Sonora-Apache) or Salt River (Pima, Maricopa) reservations or the city of Mesa itself. During the summer, federal funds provide a summer school exclusively for Indian students. Two units were tested in this setting during the summer of 1976.

FIGURE 3: Numbers of Students Involved in Pilot Test at Each Type of Setting

Most test schools reported considerable turnover in student body during the school year. Numbers given here are therefore based on average class size during testing.

	setting	number of students at each site	total for setting
Urban	Oakland	25	
	Phoenix Indian High School	28	
	Mesa Unified Summer Program	12	65
Semi-Rural	Ganado	232	
	Window Rock	52	
	Southwest Indian School	15	299
Rural	Hoopa	25	
	McDermitt Combined School	68	
	Oraibi	24	
	St. Francis Indian School	26	
	Santa Rosa Boarding School	20	
	Sacaton Public School	9	172

FIGURE 4: UNITS USED AT TEST SITES

	FWL								NITRC			
School	Oakland	Hoopa	McDermitt	Ganado	Window Rock	Oraibi	PIHS	St. Francis	Santa Rosa	Sacaton	Southwest	Mesa
Unit Cooperation	X		X	X	X		X		X	X	X	
Part of the Whole World	X		X	X	X		X	X	X	X	X	
From Idea to Product	X		X	X	X		X		X	X		
The Community							X		X	X		
The Community in Transition									X	X		
Putting Your Money to Work	X		X	X								
Living with the Land	X	X	X									X
Working for the People		X	X	X	X							X
Planning			X		X							
Putting it all Together			X		X	X						
Getting Ready for Jobs			X		X	X						
The Career Fair					X							

Analysis

Collection of evaluation data began even before the conclusion of the Development phase, as information on the first units to be developed was used to modify development specifications for later ones.

During the third Phase of the project, information was collected from the following sources: Teacher reports, pre-/posttests, site visits, formal reviews, questionnaires, and reading level tests.

1. Teacher Reports

At the beginning of their involvement in testing program materials, teachers were requested to keep a log of their progress. Specifically, they were asked to report on the following areas--student reaction to different content and activities in the units, whether favorable or unfavorable; any problems they had in presenting the unit, and how they solved them; any changes they felt it necessary to make; what local or school resources they were able to use with the unit; and descriptions of any additional student activities they added. These reports proved to be extremely valuable. Several examples are provided in Appendix B.

2. Pre-/Posttests

Teachers were also asked to administer pre-/posttest instruments provided by the developers at the beginning and end of each unit. Both the Far West and NITRC pilot test coordinators reported some difficulty in collecting this data, since, despite explanations and urging, some teachers did not give one or the other of the tests. Reasons given included fear of prejudicing students against the materials or inability to persuade students that a pre-test was not a threat, doubts about suitability of the type of test provided, and lack of time. In some cases, sets of tests which had been given were lost before being returned to the developers. Summary comparisons of the pre-posttests which were received are included in Appendix C.

3. Site Visits

Several visits to pilot test sites were made by the Senior Developer. These visits provided an opportunity to gather information about setting, available resources, students and teachers. Observation of classes and personal interviews with teachers enabled the visitor to elicit detailed information on how the units were being used and to see examples of student work other than the pre-/posttests. It also provided information on affective reactions to the materials.

4. Reviews

In addition to the comments on units received from members of the project's Indian Education Advisory Committee, some reviews of individual units were collected from teachers who were not able to actually use them in their classrooms, however the most valuable source of reviews was the evaluation report prepared by the National Indian Training and Research Center.

Their report included detailed analyses of each unit in the program, based on technical review criteria and evaluation data collected during their own test of the materials. Comments ranged from notation of typographical errors to detailed recommendations for content change. The criteria used by NITRC in these analyses and an example of a review of one of the units appears in Appendix D.

5. Other

A limited number of formal questionnaires were administered to teachers and students before and after becoming involved in the program.* These are summarized in Appendix E. Reading level tests were also applied to the units.

Revision

Unit revision began in the summer of 1976, and continued through out the fall and winter as evaluation data was received, and analyzed. The analysis served as a basis for revision specifications which were then implemented by the developers. During this period, the State of the Art was also updated.

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* Less than ten in number.

The extent of revision required varied from unit to unit. A basic format change was made to conform to actual use patterns, from separate teacher and student books to a single book which included masters for student materials; and in all cases the student readings were revised to approximately a 4th grade level. Other changes included addition of supplementary exercises or excision of unnecessary or unsuccessful ones, change in type of questions asked from essay to more objective, expansion of suggestions for additional resources or activities, and simple clarification. Unit tests were also revised and answer keys provided.

The Curriculum Guide to the program as a whole also underwent revision. The most notable changes were the addition of an outline for a teacher workshop and a model Community Information brochure. Additional information in areas requested by teachers during the pilot test was also included.

Outcomes of Phase III

Outcomes of this phase were the completed and revised State of the Art Study, twelve instructional units, and Curriculum Guide. These products are described in detail in Chapter III.

CHAPTER III: PRODUCTS

The three year's work of the Native American Career Education project resulted in three major products. These are the State of the Art Study, the Curriculum Guide, and the twelve instructional units.

The State of the Art Study

The purpose of this study was to identify and analyze materials of all kinds which could provide information or models useful in the development of career education for Indian students.

The study is divided into two parts. In Part One, materials, studies and programs which appear to have similar themes or approaches to career education are grouped together alphabetically in twelve (12) general sections. These are:

I. Philosophical Statements and Guidelines for Development and Implementation of Career Education Programs

II. Self-Concept as the Cornerstone of Career Education

III. Value Patterns Among Sixth, Eight, and Eleventh Grade Students

IV. Guidance Approaches to Development of Career Education Programs

V. Combined Approaches to Career Education Programs

VI. Field Test Results

VII. National Study of Student Career Development

VIII. Exemplary Programs in Career Education

IX. Community Control for Career Education Development

X. Approaches to Career Education at the Elementary School Level

XI. Methodology

XII. Career Education Instructional Materials and Units

A total of fifty-nine items are covered in this part of the Study. Each one is described and analyzed in summary outline form. Information given

includes bibliographical data; intended users; stated or inferred goals; content, activities, and use of the materials; comments regarding the relevance of the document under study to the Native American Career Education project; and finally, an excerpt from it which is representative of the whole.

Part Two of the Study reviews a variety of materials, including books, journal articles, curriculum materials, films, curriculum guides, program descriptions, conference reports, position papers, and final reports of national studies which are concerned with Indian education. This section attempts to provide an overview of the most significant concerns and issue in Indian education by reporting on these documents form a Native American perspective. It includes reports on curriculum programs and materials being developed by Native Americans both in career education and other subject areas, and materials for teachers of Native American students.

This part is divided into six sections, covering a total of thirty-two items. The sections are:

I. National Reports and Native American Conferences on Education

II. Curriculum Programs/Materials for Native American Students

III. Teacher's Guide/Training for Teaching Native American Students

IV. Career Education for Native American Students

V. Career Institutes

VI. Report on Occupational Education

The Curriculum Guide

The Curriculum Guide serves as an introduction, overview, and resource for the Native American Career Education Program as a whole. It is intended use by teachers, administrators, community people, and others who are involved or are considering involvement in the program. The Guide is designed to answer such questions as: What is Career Education? What is this program? Tho is the program for? How can it be used at a given school? And how can the community get involved?

The Curriculum Guide consists of eight chapters. In the first, "Career Education and the Program," Career Education as a discipline in American Education and the theoretical bases of this program are discussed. The second chapter, "Program Goals and Structure," lays out the goals of the program and defines the concepts of career awareness, orientation, and exploration which governed curriculum design. The third chapter summarizes the content of the instructional units; discusses themes such as cultural relevance, basic needs, traditional and technological lifestyles, community, career clusters, and cooperation and management, that link them; and describes sequencing alternatives and unit format.

Chapter Four, "The Program and the Student" presents information on traditional Indian teaching methods, the Indian as learner, and appropriate instructional strategies derived from the research done during Phase I and used as a basis for unit development. In "The Program and the School," (Chapter V) various implementation strategies are described, and problems of scheduling, using available space, and finding and utilizing additional resources are considered. Chapter Six, "The Program and the Community," talks about how to adapt the program to a given geographical and cultural setting, and to make use of community resources.

"The Program as Model" analyzes basic characteristics of the units from a developer's point of view, and suggests ways in which schools and communities can use this program as the basis for one which will be adapted to their unique needs. The last chapter presents a bibliography of basic resources recommended as sources of general and specific information for use with the program.

The Curriculum Guide also contains an informational brochure on the program which can be used as a master or a model, and an outline for a teacher's orientation workshop, including content, reading assignments, and suggestions on physical arrangements.

The Instructional Units

The program includes twelve (12) instructional units. The first five of these are intended to make students aware of cooperative skills and of the cultural and economic context within which careers exist. The next three

units orient students to the nature and significance of three career areas: money management (family and business); resource management (ecology); and community management (public service). These three units serve as examples of how information about specific careers can be related to the rest of the program and to real life. In a model program it is obviously impossible to cover all careers; therefore, the last four units provide students with the knowledge and skills they will need to explore careers of their own choice. These skills include planning, identifying interests and aptitudes, and finding out about job characteristics and training requirements. The pages which follow present a brief summary of each unit in the program.

Each unit includes both student materials and suggestions to the teacher on how to use them. Units are divided into several main "Activities," each of which includes several exercises. Exercises may consist of readings, questions to answer, games, simulations, project instructions, and a variety of other learning activities. Each Activity is followed by suggestions for ways of extending learning, and where appropriate, additional resources are described. The student materials may be used as master copies for reproduction by the teacher, or as models for materials which the teacher will develop. A test designed to measure student mastery of the main objectives is included with each unit, along with an Answer Key.

A unit by unit summary follows.

Awareness Level:

Cooperation

Purpose: to help Indian students develop cooperative group interaction skills, in particular those skills needed to resolve group conflicts, and to realize the importance of understanding people's values.

Summary: In this unit, students work together in small groups to talk, read, and think about cooperative group interaction skills. Activities include solving a puzzle, answering questions based on their own observations, and participating in a simulation exercise in which they play the roles of a group of students planning an Indian Day program, and another in which they simulate the staff of an Urban Indian Health Center. They are then introduced to a technique for resolving conflicts.

Subject areas: Social development, health

Part of the Whole World

Purpose: to present the ideas that there are many cultures and ethnic groups in the world, each of which has made valuable contributions; that among these groups, American Indians have been notable; that each tribe has its own culture and achievements; and that each individual contributes as well. Students also learn that all human communities have to meet certain basic needs, that the way they do so depends on their environment and resources, and that these ways of dealing with the world comprise their culture.

Summary: In this unit, students work together in small groups to gather information and produce materials for a class bulletin board or display. In order to gather material for the display, students do library research, map-related work, and reports.

Subject areas: Social development, health

From Idea to Product

Purpose: to help students understand the steps involved in making a product, and that these steps are basically the same whether the product is being created by a single person or by many people in interrelated jobs. This understanding forms the basis for a study of the relationship between economics and occupations and of the roles played by various occupations in fulfilling the community's needs.

Summary: Students learn how to analyze processes by using a simple charting technique, which they apply to the process of building a cradleboard in a traditional Indian (Navajo) setting, and then to creation of the equivalent product, a playpen, in a technological setting. Information is presented through readings and slide tapes.

Related subject areas: Economics, lumber and furniture industries, woodworking

The Community

Purpose: to help students understand the economic structure of their own community, similarities and differences between it and the economies of traditional Indian communities, and the implications of adding a new industry to the economy of a community.

Summary: Students will read about traditional and contemporary Indian communities, answer questions about their economic structures, and prepare a report; prepare an economic map of their own community; and participate in a simulation exercise in which they take the parts of community leaders who must decide whether or not to allow the construction of an electronics plant in their own town.

Related subject areas: Economics, history, government

The Community in Transition

Purpose: to help students understand some of the principles which govern cultural change and to show how it is possible to adapt to change while retaining essential cultural elements. The unit focuses on differences and similarities in the ways in which basic needs are met at different periods in a culture's history and on the corresponding effects on lifestyles, roles and careers within the culture.

Summary: Students follow an imaginary southwestern tribe of Indians from the hunter/gatherer stage of development to an agricultural village, a reservation near a rural small town, a large city, and finally the development of their own land in their own way. Activities include reading, mapwork, games, and a community planning exercise.

Related subject areas: History, geography, mathematics, transportation, industry

Orientation Level:

Putting Your Money to Work

Purpose: to help Indian students understand how to manage resources, particularly the resource of money, both on a personal level and in the world of work.

Summary: Students do exercises and small group activities in which they consider how money is used, practice check-writing and balancing a family budget, learn about the use and movement of cash, stock and other assets in a small business, learn about the process of applying for a loan, and learn about some careers which involve managing money.

Related subject areas: Mathematics, business, banking

Living with the Land

Purpose: to help students understand concepts involved in the management of natural resources, especially as they relate to traditional Indian values; understand the relationship between basic needs, resources, and waste disposal methods; and become familiar with occupations in the area of environmental and natural resource management.

Summary: Students read about basic ecological concepts and play a game which reinforces this knowledge; examine pictures of common items in a traditional Indian and a contemporary house in order to compare the ways in which basic needs are met, what resources are used, and how waste products are dealt with; read about environmentally directed careers, and decide which of these careers would be relevant in solving environmental problems currently facing Indian tribes as described in newspaper articles.

Related subject areas: Life sciences, ecology, and careers in these areas.

Working for the People

Purpose: to help students understand the basic functions performed by government for the community and the need areas it addresses; to help them understand the organization and activities of federal, state, local and tribal governments and volunteer organizations, and introduce them to public service and some of the careers it includes.

Summary: After an introductory consideration of the nature of government, students will read about three traditional Indian styles of government. They will learn about the three levels of American government and the nature and requirements of one career at each level, and they will play a card game in which they must acquire the cards representing fulfillment of all a community's needs. Following this activity, they will read about three contemporary tribal governments, an urban Indian center's operation, and a

Working for the People (continued)

survey of Indian organizations. They will also read about some jobs connected with each of these three areas. Finally, students participate in a simulation exercise in which they take the parts and points of view of people from various agencies and organizations who must recommend action on Indian government to Congress. An on-going activity is the preparation of a display of newspaper articles featuring government and public service.

Related subject areas: Government, public service careers

Exploration Level:

Planning

Purpose: to introduce students to the concept of planning and help them see its relevance and importance to their daily lives, their group work and their possible career choices. Students will have a chance to practice planning, to learn to plan better by using a five-step process, to overcome obstacles to a plan, and to plan and make decisions as a group.

Summary: Students will begin by defining their own interests. They then consider their daily activities, which tasks require planning, and how they might better plan the use of their time. They also learn and practice five steps to better planning. Small groups play a game in which they make a plan, think up obstacles to another group's plan, and think of ways to overcome obstacles to their own plan. Finally, students take part in a simulation exercise which gives them practice in group planning and consensus decision making. During the unit, students are also asked to keep a journal of their reactions and ideas.

Related subject areas: Composition, mathematics, art

Putting It All Together

Purpose: to introduce students to the idea that in both traditional and contemporary societies, careers can be divided into clusters. Students also consider how their own interests, values and aptitudes might affect career choice. They see how people with different jobs and interests work together to create a product, and study similarities and differences in values and job types in traditional and contemporary societies.

Summary: Students learn that careers can be grouped together according to common features in the jobs performed (e.g., Health, Transportation, Personal Services). They see how jobs involved in meeting basic needs are or are not different in a traditional and a contemporary society. They build and market a real or imaginary kite to learn how people with different jobs and skills must work together to create a product. They describe and demonstrate their own interests and aptitudes and learn about those of others, and consider their values and how these might differ if they lived in a traditional society. Finally, they consider how people's interests, aptitudes and values can affect their career choices.

Related subject areas: Social development, economics

Getting Ready for Jobs

Purpose: to acquaint students with educational and training requirements for different jobs and provide enough data so that students can extrapolate the general requirements for different types of jobs.

Summary: In this unit, students are re-introduced to the idea of career clusters. They also meet the idea that jobs can be divided into levels according to the amount and kind of training which they require. Students play games and solve a picture puzzle by reading and manipulating data on educational and training requirements for different jobs, and they consider how this information might apply to their own career plans. In addition, students study "want ads" in real and imaginary newspapers, and match given

Getting Ready for Jobs (continued)

jobs with characteristics and skills of real or imaginary people. They also consider mid-career decisions (e.g., whether to continue in a particular job or go back to school for more training) and how personal values and emotional needs can affect such decisions. They compose and solve problems or "stories" involving mid-career decisions.

Related subject areas: English/composition, mathematics, social studies

The Career Fair

Purpose: to help students review and apply the knowledge which they have gained in the preceding eleven units.

Summary: As an introductory activity, students consider and discuss some of the general concepts which have been dealt with in previous units. They also discuss their reaction to the units. They then plan, prepare, conduct and evaluate a Career Fair. This involves individual and group research into the nature and requirements of jobs chosen by the students; group planning, decision making, and cooperation in preparing the Fair as a whole and the individual "exhibits" within it; use of individual artistic, literary and other skills in creating the exhibits on particular jobs; and evaluation of their work through their own observations and a questionnaire filled out by visitors.

Related subject areas: English/language arts, Arts and Crafts, library skills.

CHAPTER IV: CONCLUSIONS

The time span of the Native American Career Education project did not allow evaluation to go beyond the formative stage. No single group of students was able to use all twelve units in the program, nor could the recommended three year sequence be implemented. However, given these limitations, considerable information was gathered, and it is now possible both to comment on the strengths and weaknesses of the program and make some recommendations as to the course future work in this area might follow.

Evaluation Results

Formative Evaluation of units in this program revealed a number of areas in which the program had both achieved and failed to achieve its goals. The purpose of the revision effort described in Chapter II was to eliminate the problem areas described below.

Problems and Solutions

Problems with the materials can be divided into those involving methodology, content, and implementation.

1. Methodology

Both reviewers and teachers reported that many of the readings were too difficult for some of their students. It had been assumed that a 5th or 6th grade reading level would be appropriate, but in fact 3rd or 4th grade appeared to be closer. Associated with this was the fact that many students had difficulty with written expression, which made it hard for them to respond to essay type questions. It was recommended that the readings be shortened and revised, and that the format of the exercises be changed from written to fill-in, multiple-choice or other types of questions requiring less writing. The latter problem also characterized the tests, and contributed a great deal to the difficulty both of administering and interpreting them. This kind of problem was characteristic of students in all three types of school setting.

2. Content

Many unit activities were written on the assumption that students already were familiar with certain facts and concepts which in some cases they had not encountered before. Teachers had to fill in with extra explanation and introductory activities which could span the gap between what students were expected to learn and what they already knew. In the revisions, a number of such intermediate exercises were developed, or suggestions were added to the Teacher Guide on how to deal with this potential problem.

A problem which it was not always possible to solve was the fact that many Indian students identify only with their own tribes and home areas, and therefore illustrations and examples representing other tribes or areas mean little. American Indian tribes from different areas may be extremely different in culture, and it is not possible to talk about them all simultaneously. Suggestions were added to the teacher's guide to replace such illustrations with examples from the local area when this seemed likely to be a problem.

Units were also criticized on the grounds that the sexes were unequally represented. In the revision, females were shown in greater numbers and varieties of roles, wherever possible. In cases where an actual historical situation or a work situation where both sexes were not employed was described, students were encouraged to discuss why these conditions prevailed.

3. Implementation

In some cases, setting up field tests proved difficult because of the innovative nature of the materials. Some teachers did not at first perceive how units could be integrated within the existing curriculum, or found the approach incompatible with their own teaching styles. The comment of one teacher who did not use the materials is significant--

> In the teaching of junior high age students, I think that a strong feeling of direction and control is needed. I do not believe that this program will provide this for either student or teacher.
>
> If the program is ever to be used successfully I feel the teachers involved should receive training prior to using the material.

> This program does not fit my method of instruction. This is not to say that it would not work for someone else with a different set of values as to what should be taught and how.

As a matter of fact, this comment was considered by some members of the project's Advisory Committee to be a compliment to the program, since the materials were specifically designed to harmonize with the Native American belief that learning should be self-directed.

Some teachers also felt insecure dealing with the Indian cultural elements in the units, or reported difficulty in locating information on Indian culture when it was required. The range of print and other resources available to schools varied widely, and in some places lack of them made it hard to do all the activities. In revision, the likelihood that any given resource would be unavailable was considered, and if necessary, the information was either incorporated into the unit, or its use was made optional.

In some classes, teachers unfamiliar with the management of workgroups had difficulty in getting students to cooperate. Usually the biggest problem was in getting boys and girls to work together, although in classes with non-Indian students there were sometimes (though not always) racial tensions.

It was recommended that the Unit "Cooperation" be used first with classes unused to group work, and a discussion of this problem was added to the Curriculum Guide, however it seems probable that the only way to really solve the problem of teaching methods and implementation would be to develop teacher training materials, as the teacher quoted above suggests.

Program Strengths

In addition to identifying problems, evaluation of the program provided a number of indications that it was achieving its goals. Such indications came from teachers, students, reviewers, and community members. Some of the benefits which appear to have resulted are described below.

1. Filling a Curricular Gap

Although teachers involved in the program were quick to point out flows, they were equally quick to express their enthusiasm for the program. Indian and non-Indian teachers with imagination and sympathy with the approach used in the units found they had little difficulty in dealing with the problems present in the field test version of the materials.

Many of them had been looking for materials of this type for some time, and were delighted to have the chance to use them. It was common at orientation sessions to see people grab for copies of the units, and begin to plan how to make use of them then and there. Most of the teachers involved in the field test expressed an interest in or intention to continue using the units after the field test was over.

The project's Indian Advisory Committee, which was originally somewhat dubious as the staff's ability to achieve project goals, in its final meeting was able to state that it felt that the materials would promote:

> (1) Learning and reinforcement about the contributions of Native American cultures...
>
> (2) Understanding of the importance of the traditional educational process and expansion of the scope and selection of careers available to students.*

Reviewers found that content in the units was in almost all cases accurate, culturally appropriate, and likely to meet student needs. The conclusion of the NITRC analysis of the units was "...that as a whole the units were judged to be of fine quality..."* One NITRC review of an individual unit is included in Appendix D as an example.

2. Providing Materials Which Can Be Used in a Variety of Settings

A list of the different kinds of learning situations in which units were successfully used indicates the range of possibilities:

- single subject classes--English, Social Studies, Science, Math
- special career education classes
- combined subject classes
- classes intended to motivate drop-outs to stay in school

Some teachers used the units exactly as written, while others took full advantage of the suggestions for additional resources and activities and adapted and added activities of their own.

---

*Indian Education Advisory Committee, "Closing Statement," November 8, 1976

In addition, there was some evidence that individual approaches, ideas, and content from the units were being picked up by teachers not involved in the program.

3. Improving Student Self-Concept and Skills

The units in this program were the first materials written specifically for Indians that some students had ever encountered. Teachers described many expressions of enthusiasm, and in one case (where racial tension already existed) students began using the existence of and information in the units as evidence of their superiority! One parent reported that her son, who had tended to ignore his Indian heritage previously, was now actively proud of it. Some students who had refused to respond in other classes began to participate.

The following description by the Coordinator at Ganado Junior High School indicate the kinds of improvement that occurred:

> Given that student competency in the usage of the English language is from poor to adequate, these 7th, 8th, and 9th graders seemed to use the opportunities provided by the material to increasingly share experience by utilizing various means of communication. The more able students began to encourage the less facile communicators by doing much translation for them. Students who had always been able to hide in the background were encouraged by peer pressure to contribute to a discussion, even if the responses were a simple "yes" or "no"... I noticed several students with a limited English vocabulary become excited enough to expound rapidly in their native language and then, with difficulty, replace words in English. Tolerance was evident on the part of all students as they participated in efforts to assist everyone in finding means to exchange information. A noticeable increase in respecting attitudes seemed evident...

Student answers to fourteen questions about their reactions to the materials were summarized by NITRC as follows:

- Overall, the program was thought to be a good one. A high positive affective of 3.29 (4.0 being highest possible) was obtained.

- The question which received the highest importance was the relevance of the curriculum to cultural background (average

rank 3.78) followed by importance of learning about Native American culture (3.61) and importance of learning of careers and how they relate to one's life and community (3.59).

- The lower area (although still about neutral in nature) was how much students felt they had learned about working in groups (average rank 2.96).*

4. Improving Student Knowledge about Careers

Before/after questionnaire administered during the NITRC pilot test showed an increase in student: ability to identify local and state job opportunities; distinguish between a job and a career; belief that education is relevant to career choice; and belief that career choice influences life-style.

Pre-/posttest comparisons show a gain in knowledge of the information presented in individual units which was in some cases small, but very singificant given students' reading and writing problems and their resulting difficulty in dealing with the test items.

Teachers also reported students' verbal expression of belief that they had broadened their understanding of careers through taking the units.

Impact

It seems probable that schools planning Native American Career Education programs will be very interested in these materials. During the course of the project, numerous inquiries about them have been received, and a large number of schools have requested copies of materials and expressed interest in using them.

The reaction of the pilot test sites have been very encouraging. The teacher at Oakland Technical High reports plans to use the units when her class is reconstituted again in the spring of 1977. The first four units were made part of the 7th grade curriculum at McDermitt Combined School, and the principal plans to extend the program throughout the other grades. Ganado Junior High School recently received funding for a Career Education

*Independent Evaluation of the Native American Career Education Units, p. 57-58

program of which the Native American Career Education units form an integral part. Curriculum committees at St. Francis Indian School are exploring possibilities of using more units next year. The NITRC pilot test coordinator also reports interest in continuing to use the units at the schools with which he was working.

Dissemination

Sets of the revised units are being sent the following schools, districts, and organizations:

Window Rock School District
Ganado Junior High School
McDermitt Combined School
Oakland Indian Center
Taholah School District

In addition, program materials will be sent to the Indian Education components of the Departments of Education of California, Nevada, Utah, and Arizona, and the members of the project's Indian Education Advisory Committee.

Units have been received by the following Bureau of Affairs schools, offices, or programs:

Aberdeen Area Office, Aberdeen, South Dakota
Career Education, Hopi Health Careers Program, Oraibi, Arizona
Hoopa Elementary School, Hoopa, California
Phoenix Indian High School, Phoenix, Arizona

The Indian Education Resource Center at Albuquerque, New Mexico, has arranged to print copies of the materials and is now planning to distribute them to 135 additional schools in Arizona, New Mexico, Oklahoma, North and South Dakota, Utah, Alaska, California, Oregon, Mississippi, Arkansas, Montana, and Wyoming. A complete list is included in Appendix E.

Summary Interpretations

The following conclusions may be drawn from project research and the pilot tests of the Native American Career Education Program conducted by Far West Laboratory and the National Indian Training and Research Center:

- materials written for Indian Junior High School students should require no more than mid-elementary level language skills;
- materials should include all necessary information and resources;
- materials for Indian students should be relevant to students' tribal cultures (if they are not developed specifically for the tribe or culture group with which they are being used, teachers should be able to adapt them);
- this program can be very successful with teachers who are sympathetic to its goals and instructional approach;
- the program can be implemented in a variety of settings;
- many students have little experience in working in groups and need help to do so effectively, however the program tends to improve their abilities in this area;
- involvement in this program can give students a new appreciation of their own culture, motivate them to participate in class activities, and broaden their understanding of careers;
- the program addresses a curriculum area which has not been previously covered;
- the program is likely to appeal to schools looking for career education materials for Indian students.

Recommendations

Interpretation of the project's research findings and evaluation of its programmatic and product outcomes suggests a number of areas in which continued evaluation, design, development, and dissemination should take place.

Field Testing of the Program

The current project must be considered as an initial research effort coupled with a pilot testing of the program materials. The instructional

units that have been revised based on the pilot test should not be field tested as a continuation of the research effort.

The program should be tested: (1) to determine the effectiveness of the revisions; (2) to compare its effects when implemented in different ways; (3) to determine the cumulative effects of all twelve units when used over the recommended three-year time span; (4) to determine the effectiveness of the program with students from Indian cultural groups not included in the pilot test; and (5) to determine the feasibility of the recommended community involvement procedures.

Teacher Training

During pilot testing, it was found that many teachers, even those who prove to have little difficulty in using the materials, were originally hesitant and insecure about their ability to deal with them. In some cases, this was due to unfamiliarity with Career Education. In others, non-Indian teachers were diffident about trying to deal with Indian cultural materials. Although no workshops were originally planned for the project, it was found advisable to hold two, involving both teachers and administrators, before pilot testing began.

The plea for teacher training as a prerequisite for involvement in the program quoted on page 44 is one of several such indications of need which we have received. For the materials to be successfully implemented into the entire curriculum--involving the cooperation of all teachers in a school rather than those who are initially most interested--development of a teacher training program would seem to be a prerequisite. This program could be used either independently or as part of the Curriculum Delivery System described below.

Design of a Curriculum Delivery System

Analysis and interpretation of the pilot test findings clearly indicates that in all settings the value and effectiveness of the program is enhanced: (1) if the administration of the school involved understands, values, and knows how to support implementation of career education as a content area, and culturally positive curricula for Indian students; (2) if the teachers are already familiar with basic content and instructional methods appropriate

for career education, are comfortable with a bi-cultural approach to teaching Indian students, and are familiar enough with their students needs and available educational resources to adapt materials if necessary; and (3) if school personnel have the knowledge and sensitivities needed to involve the Indian community in the program. The project staff discovered that the success of pilot testing in a given school was closely related to administrative support for the program, teacher confidence, and at least acceptance of the program on the part of the local community.

The need for understanding and support from district and building administrative staff in implementing career education programs (and innovative programs in general) has been noted by many disseminators. Such personnel do not always have the background (or the time) to see how a given program or set of materials could be integrated into their school curriculum. And if they are not supportive, teachers may not take the trouble to investigate new materials, if, indeed they find out about them at all.

In implementing a Native American Career Education program, the Indian community cannot be ignored. Not only is its acceptance of the program necessary if it is to be used at all, but (especially when most of the school staff is non-Indian), the presence of adult Indians can be invaluable in enhancing the credibility of the materials and their meaningfulness to students. However, in many areas there is a long history of distrust between parents and school, and both school personnel and community members may need help in learning how to work together.

The materials which have been developed appear to be of value, but without a curriculum delivery system which will help schools to implement them, they may never be properly tried.

Extension of the Program to Other Grade Levels

One of the most common questions from both school people and members of Indian parent groups when first introduced to the program was whether or not similar materials existed for use in elementary and high school, and if not, whether the project staff had any plans to develop them. Parents or teachers of students in other than Junior High grades seemed positively resentful that their children would not be able to benefit from the program.

Therefore, although the reasoning which led the project to target this program at the Junior High School remains valid, it would seem that developing similar materials for use earlier and later in the school curriculum would meet a very real need. The Native American Career Education program could be extended in three blocks: one consisting of activities for the primary level (grades K-3); one for the intermediate level (grades 4 through 6); and one for the high school (grades 10, 11, and 12), which might move from career exploration towards experience-based preparation for careers.

National Dissemination of the Program

In order to retain control over the price, availability, and content of program materials, and to remain responsive to Native American desires and needs, the project has made the decision not to offer these materials to a commercial publisher. Project staff, therefore, are actively seeking some Indian-controlled organization or agency which will be willing and able to distribute these materials at cost to all schools which might be interested in them.

As indicated on page 49, units are already being distributed to BIA schools all over the country. However, a great number of Indian students are served by state public schools in urban or rural areas, schools run by religious organizations, and Indian community controlled schools. It is important that career education be available to students in these schools as well.

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APPENDIX A

Curriculum Map

PROGRAMS →		AWARENESS PROGRAM			
CONTENT DOMAINS		CONTENT AREAS	(K) KNOWLEDGE	(S) SKILL	(A) ATTITUDE
I KNOWLEDGE AND MASTERY OF SELF	STRANDS	1 Self-and-Cultural Awareness and Self-and Careers	a) understand self and one's unique Native American value and culture b) know sources of information about self and one's tribe c) understand that work affects one's way of life	a) identify own individual characteristics	a) accept self; respect own uniqueness b) understand and appreciate value of one's own Native American culture in one's life
		2 Self-sufficiency	a) understand the importance of making one's own career choices		a) develop motivation to accomplish personal goals
II SOCIAL DEVELOPMENT	STRANDS	1 Social Awareness	a) understand that individuals differ in their interest, aptitudes, values, and achievements b) understand the value and positive contribution of one's Native American culture to the non-Native society	a) identify one's own tribal characteristics	a) accept others
		2 Social Competence	a) understand the significance of competence in group interaction skills b) recognize the implications of association with and working cooperatively with others	get along well with others in a group one likes to be in	a) accept responsibility for others
III OCCUPATIONAL AND ECONOMICAL DEVELOPMENT	STRANDS	1 Understanding the World of Work	a) understand the relationships of man-life-work/careers b) understand that society is dependent upon the productive work of many c) understand the role of work in the Native American communities economy		a) appreciate the role that work plays in human life and in society b) appreciate the value of career information to career education
		2 Employment and Employability	a) know basic occupational information b) know traditional Native American skills that through transition can fit into contemporary settings		a) appreciate the contribution that one's employment may make toward self-fulfillment
		3 The Role of Education and Training	a) understand that experiences, knowledge, and skills acquired through education are related to the achievement of career and life goals		
		4 Economic Awareness and Sufficiency	a) understand the role of economics in one's life and the relationship between personal economics, life-style, and occupational roles b) recognize career needed to fill existing needs of the Native American community		a) appreciate the importance of productive work to the economy and to one's own well being
IV AVOCATIONAL (LEISURE) DEVELOPMENT		1	a) understand that career includes avocation and leisure b) know patterns and options of avocation and leisure particularly in the context of Native American cultures	a) carry out some leisure activity (game, etc.)	a) develop interest in engage in avocational/ leisure experience

CURRICULUM MAP

(Level of Detail: Career Education Goals)

PROGRAMS →			ORIENTATION PROGRAM		
CONTENT DOMAINS		CONTENT AREAS	(K) KNOWLEDGE	(S) SKILL	(A) ATTITUDE
I KNOWLEDGE AND MASTERY OF SELF	STRANDS	1 Self-and-Cultural Awareness and Self-and Careers	a) understand that individual characteristics can be changed	a) correctly interpret data about oneself	a) appreciate the value and contribution of one's Native American culture to the society
		2 Self-sufficiency	a) understand that life involves a series of choices leading to career commitment b) understand self in relationship to career roles (vocation, avocation, leisure)	a) interpret the significance of individual characteristics, values, and interests to one's career b) use resource information to gain orientation about and to explore careers	a) take responsibility for career planning
II SOCIAL DEVELOPMENT	STRANDS	1 Social Awareness	a) understand the individual's responsibility towards other people, the community, and the society b) understand the traditional political processes used by Native American groups	a) clarify the individual characteristics of others	a) accept responsibilities to self and others
		2 Social Competence	a) understand that social and cultural forces influence human development; know about the influence of Native American cultural forces	a) acquire a minimal set of group interaction skills	a) value the possession of group (interaction) skills
III OCCUPATIONAL AND ECONOMICAL DEVELOPMENT	STRANDS	1 Understanding the World of Work	a) become familiar with occupational classifications and clusters b) gain in-depth orientation about self-selected occupational clusters and knowledge of prerequisites of certain careers	a) classify various occupations b) analyze self-selected occupational clusters in terms of opportunities, potential satisfaction, roles, and life-styles	a) develop positive values and attitudes toward work that enables one to obtain, hold, and advance in career b) appreciate the value of career information in making career related decisions
		2 Employment and Employability	a) understand that individuals can learn to perform adequately in a variety of occupations and environments b) acquire knowledge about local labor market conditions c) become aware of what skills are employable	a) analyze careers associated with Native American and U.S. political process	a) develop respect for and appreciation of workers in all fields b) appreciate the significance of acquiring employable skills
		3 The Role of Education and Training	a) acquire knowledge of educational resources, paths, and options b) understand that learning is continuous, occurring both in and outside of school	a) relate subject matter or content knowledge to career development	a) value continuation of learning
		4 Economic Awareness and Sufficiency	a) understand the economic implication of various career paths b) understand relationships between consumer and supplier	a) develop skills in the management of resources	a) appreciate the way resources have been managed in traditional Native American communities
IV AVOCATIONAL - (LEISURE) DEVELOPMENT		1 →	a) understand that successful avocational and leisure experiences may contribute to satisfaction in life b) know specific avocation/ leisure opportunities	a) acquire introductory skill in selected avocational activity(ies)	a) develop appreciation of the contribution of avocation and leisure activities to the fulfillness of one's life

PROGRAMS →			EXPLORATION PROGRAM		
CONTENT DOMAINS		CONTENT AREAS	(K) KNOWLEDGE	(S) SKILL	(A) ATTITUDE
I KNOWLEDGE AND MASTERY OF SELF	STRANDS	1 Self-and-Cultural Awareness and Self-and Careers	a) understand the implications of knowledge about self b) understand the implications of being a Native American in the contemporary society c) assess self-satisfaction by relation to career choice	a) explore one's place in life b) test self-concept in the reality of work settings c) explore one's place in oen's own Native American (Tribal) community	
		2 Self-sufficiency	a) understand decision making procedures that can be used to establish personal goals and to make career related decisions b) acquire knowledge of decision making process	a) formulate tentative career goals, carry out career planning, and make tentative career choices b) conduct value analysis of career options c) assess probability of attaining goals	a) Acquire a sense of independence and control of one's own life
II SOCIAL DEVELOPMENT	STRANDS	1 Social Awareness	a) understand the multiple ability requirements for members of working groups b) recognize the implications of working with and without supervision, idependently, and with others	a) determine the resources of a group and how best to use such resources	a) accept responsibility to the environment
		2 Social Competence	a) understand that group interaction skills aid work performance and increase satisfying human interactions	a) acquire competences in process (interaction) skills (communication skills, planning, organizing, carrying out tasks, evaluation, etc.) b) relate information about self selecting, learning and performing duties	a) accept responsibility to the society and government b) become willing to make contributions to group efforts and share responsibilities with others in a group
III OCCUPATIONAL AND ECONOMICAL DEVELOPMENT	STRAWDS	1 Understanding the World of Work	a) understand how work is structured and how power operates within a work organization b) acquire knowledge about vocational resources c) increase knowledge of occupations and work setting	a) make knowledge-based choice of a career cluster b) function in self-selected work settings c) implement a work plan and monitor progress	
		2 Employment and Employability	a) learn what skills are required for employability in selected career(s) b) acquire knowledge about regional and national labor market conditions	a) acquire a basic set of employable skills b) develop work habits necessary to enter into an exploration of an occupation in the career area of one's choice	a) develop work attitudes necessary to explore an occupation in the career area of one's choice
		3 The Role of Education and Training	a) understand the relationship of alternative educational paths to alternative career paths b) recognize the relationship of interests, aptitudes, and and achievements to the realization of career goals	a) develop an educational plan that matches and supports a certain career desire	
		4 Economic Awareness and Sufficiency	a) understand that the Native American community is dependent economically on the productive work of its members b) understand the principles of land and resource management common to Native American traditional views and practices		
IV AVOCATIONAL (LEISURE) DEVELOPMENT		1 →	a) understand the relationship between career paths and paths of Avocation/leisure	a) improve skills in selected avocation/leisure activity(ies)	a) develop an appreciation of the contribution of avocational and leisure activities to the society and the nation

APPENDIX B

Teacher Reports

"Part of the Whole World" - Mrs. Madlynn Pyeatt, Oakland
"Cooperation" - Miss Paul, Ganado
"From Idea to Product" - Peggy Bowen, McDermitt
"Living with the Land" - Mrs. Jones, Ganado

The reports presented in this section are represenative of the type of feedback provided by teachers involved in pilot testing program materials. The first report in particular is virtually a case study of the challenges and rewards involved in trying to implement a new curriculum amid the distractions and uncertainties of an actual school setting.

Mrs. Madlynn Pyeatt
Native American Opportunity Class
Oakland Technical High School

Log - "Part of the Whole World"

We arranged to splinter off a Native American group from a 2-hour bloc opportunity class taking multi-ethnic studies as a theme. We were given a WWII protable to fix into usable space. That's bad because it will take time and effort. It's good because there will be less chance there of having intruders and of having other students destroy bulletin boards, craft projects and supplies, etc. Since we planned to transfer qualified students from various schools, and this would take a while, we began, slowly, by fixing up our area, learning a little about regional art styles as we went along. Maybe I should make a few statements about who was chosen for the class. We were looking for students with attendance problems for now because it was not possible to cut two opportunity classes from the total schedule--but it was possible to make them into special-interest opportunity classes. Because my pre-existing class had been set up as a two-hour bloc for English and social studies credit, it would be necessary to work the requirements for both departments into the class.

Week of October 22-29

Students began to arrive (the transfers were not in my control). Laura Melendrez, Terry Running Crane, Flora Melendrez, Jean Martinez, Lynn Powell, Dorothy Lima, and Joaquin Lozoya came in during this time. We were working at the normal lessons for the multi-ethnic class. I gave the students a chance to look at the portable and they decided to take it. Then we began to clear some space, clean it up, and start to decorate it. Since we began with a portable previously occupied by a class which was using it to store mountains of collapsed cardboard boxes, mountains of newspaper, various carpentry and mechanical projects, even an unfinished boat (!), we had our work cut out for us. We cleared half of the space, the best we could do since the school wouldn't dispose of the rest of the stacks; we had a quick lesson in how to slipcover an old couch; we started some plants, located and hung shades so we could use films and so forth. The walls were dark, dingy, rain-soaked and stained, filled with grafitti, so we decided to paint. I dragged out a dozen good arts references and students chose designs to begin a set of murals (as long as we were at it).

October 30

We decided to take the plunge today and gave the pre-test. Class really began. Everyone went into a fluster. I tried to reassure them but they knew few answers, felt embarrased, were upset. I read the opening poem and tried to give a survey-type introduction to the book and to the series--rather as in the "teacher suggestions."

October 31

We began on Activity 1, and previewed page 6. The library was closed for testing and we were still in the process of changing rooms, so we decided I'd bring in books on world cultures that they could select from the shelf and use for reference. I have some misgivings about this beginning part. Last time I got a lot of rote answers to the questions but didn't feel students were getting to the core of it. They didn't seem to get any feeling for why we should begin here, how it fits into the theme of the book, how it is related to jobs, or even how jobs are related to culture which is related to environment. At least I knew part of what to watch out for and to try to improve upon.

November 3-4-5

We worked 3 days straight, sometimes with an opaque projector to share material from a book, on climate, vegetation, and ethnic groups. At this point I found language families creeping in and had to provide a lot of information on those. There's just a lot of grouping of ethnic groups that depends on the concpet of language family and my students made no more sense of that than I did as a high school student. At least they know more about it now than I did then. We had agreed a sampling of films from assorted world cultures would be helpful and selected a few. I felt a lot better about the concepts reached this time.

November 6

We viewed films: A. The Old Africa and the New: Ethiopia and Botswana, and B. Kenya: The Multi Racial Experiment. These were more or less continental representatives.

November 7

We continued films: A. Colombia and Venezuela (to represent South America--not very good films, must find something better) and B. India--the Struggle for Food (which represented that sub-continent and had the bonus of raising for discussion the issue of how survival affects culture).

November 10

We spent today on our portable again. Actually we had a lively discussion of the differences in regional art styles, a point which will surely be helpful as we get toward the end of the book. We concluded by trying again to wrap up exercise 2. I'm discouraged by the slow progress on it but am determined to have better concepts come out of it this time.

November 11

We were painting and muraling today the first period. We finally completed the killer whale mural. The second period we rejoined the multi-ethnic class for films, slides, artifacts on modern Red China with commentary by a recent visitor there. Today's session was lively.

November 12

We salvaged a bookcase, cleaned it up, learned to take apart and reassemble a piece of furniture that has come unglued. One group worked on a cloth hanging and another on a bulletin board mural. We spent the second period going over vocabulary. Already there's a lot of it. The words in the book are nothing, but the words from the outside sources pile up fast.

November 13

We spent some time on current portable projects and some on individual work in progress. I allowed time for people to select and begin books for a report. Turns out some have been dying to get at my book racks. Somehow, questions arose about ribbonwork so I broke into a quick lecture on various kinds.

December 15

I thought we might be doing some forgetting so I popped a review quiz, more for my assessment than for the students' grades. Results were so-so; fairly good for the consistent attenders; rather poor for the ghostly types. We ended by going over the test together for a real review of ground covered so far.

December 16

The group asked for one more pure reading day. So I brought the book report forms (dividided by grade level and arranged to cover the points required at each level by the English curriculum). I gave brief explanations of how the reports are to be done and set January 6 as the due date. Then we read.

December 17

The holiday-coming syndrome has hit. Iris McKay dropped today to return to Montana. Attendance is awful. I suggested to the few who were here that they begin the next section, read pages 23-29, and start on the last part. I allowed the option of finishing current reports and most read 23-29, then did that.

December 18

I had the same problem as yesterday and virtually the other half of the class showed up so I repeated the assignment for them. We have a new student--Robert Mayokuk.

December 19

We lost one period to an assembly so I asked the group to read Native American student poems and an excerpt from Black Elk Speaks which I had saved from old issues of Scope. Lesson was lively; attendance awful. We have a new student--Laura Watson.

January 5

I assigned pages 17-22 in earnest. We made page 18 a report assignment. I departed from the requirements here. If they gather just that data on all 10 groups, I get a lot of rote stuff and no understanding of any one group and their relationship to environmental conditions, etc. So we divided the task. Each student selected one of the major groups to study in detail and later share. I took the task of being main resource-finder. We tore up my copy of Pictorial History of the American Indian for one main source. I alos brought in copies of the BIA regional pamphlets and made appropriate warning remarks about considering the source-by encouraging their use for some kinds of facets. I promised more, later. I also distributed Oakland Public Schools source books for those groups that have been compiled.

January 6

We continued on those reports and I collected the due book reports. We got word today that the Master Plan Citizens' Committee awarded us $1,000.00 in seed money for books, materials, etc. for this project. There's not word yet on when that money comes available.

November 14

We worked on the portable and I allowed some time for make-up work today. Some finished the pueblo hummingbird on the door. Some built two shelves inside a giant lectern while others painted it turquoise and started putting designs on it. Two worked on the peyote bird cloth hanging. In between, we discussed and worked out plans for the coming week.

November 17

Students have been working on the books we rounded up on world cultures, preparing the reports on the countries they selected. I have decided I have two problems with what is going on: (1) I think it will make better sense next time to get them to do a small culture group from each continent, carefully scattering the choices to cover different climate, vegetation, and geographic factors, and (2) I see their efforts as too scattered, not getting into the concept of the relationship of environment to culture to jobs that ought to be going on here. I am getting fact collection; not enough concept development. It's so bad that immediate remedy directed at that point is needed. We've already spent a lot of time on the reports so I'll try a very tight comparison of the kind I have in mind. I borrowed for today the film Dead Birds which is on New Guinea, tropical, rain forest, island culture. The idea is to follow it with a series of films on eskimo peoples in an arctic tundra area, then try to draw out relations between environment, culture and jobs. The contrast should be so great that everyone will get at the concepts. Dead Birds is a very long film (and an attention-getter) so after the showing there was very little time left and we spent it on beginning a sand painting (giant size) for the portable.

November 18

Some questions arose about the film (some had missed it through absence and I always find some are not very adept at film-watching) and, since it was still on hand we re-screened some relevant portions and had a long discussion on how the environment sets conditions and needs for the culture. I had prepared a worksheet for them to set into writing the results of this film-source lesson. We finished by beginning to get this filled out. New student--Doris Chatlin. Lost Lynn Powell--returned to Oklahoma.

November 19

We worked over pages 8, 9, 10 and each student collected pictures representing tradition and modern styles for each culture. We then began on the second film in my contrast lesson, Fishing at the Stone Weir, and followed by working at the contrast of environments and the influence of that and at the contrast of agricultural and nomadic life styles. Big bug got in today. Four of my students are not attending their other classes to any significant degree. Teacher, counselor, and vice principal have all spoken to them with no result so today we tried setting them up in their own counseling group. Trouble is, no one can be sure of catching them at school, in any reasonable degree, except during my class so--there goes half the class in the middle of my attempt to solve the current problem!

November 20

Lots of people were unreasonably late today so I spent the first 30 minutes with those who were here working on the sandpaintings. Then we watched the other two films of the eskimo set, At the Caribou Crossing, Parts I and II. Most who missed the screening yesterday at least were here today so they'll be able to make out. Some managed to miss some vital part of the lesson, however. The total result for those who watched at least some of both sets of films, however, was good. Lots of questions came up and it's clear something about the concepts and relationships is coming through now--and it sure wasn't before. We didn't really finish the discussion; will have to continue tomorrow.

November 21

An assembly took one class period from us today. We have been asked to prepare a display to represent Native Americans for American Education Week and decided to do a bulletin board and to set some sandpaintings in a main display case. Volunteers undertook to get the bulletin board taken care of outside of class time but the sandpainting still needs to progress with instruction so we spend some time working that while discussing the films some more. We also spent some time working on page 11. After the long discussions of the last few days I'm getting at more of the problem. I guess I studied something called world geography in 6th grade but I guess it doesn't get taught (or learned?) any more. When it comes to understanding what chaparral is, or what a sub-arctic climate implies, etc.--I draw a blank. Some basic information on this will have to be set into the lessons next time so it's orderly--not just me troubleshooting on this sort of thing as it becomes obvious that this or that student doesn't have this necessary understanding. Next week is a short week due to Thanksgiving vacation. The pattern for this school calls for lousy attendance the last few days before vacation so I'll set up hands-on projects for that week and sneak in as much material as possible on the terms for different climate and vegetation patterns. I'll bring books from the Time-Life series for photographs to illustrate them--that's not the best solution, but it's a quickie and if I wait, I'll have lost the interest.

November 24

Today we completed and set up the sandpainting display. Then I passed out a fact worksheet, followed by a concept essay test, on the film activity. The expected questions began popping and I dragged out the books and began helping students find pictures that would help the understanding. New student--Iris McKay.

November 25

Time was given today to complete the essays. It really took a lot more time than was expected. As students finished them up, I allowed them to work on individual projects: pipe carving, beads, individual sand paintings.

November 26

We lost one period again to an assembly and very few came to class today so I put off and allowed all those finished up to date to work on individual projects while I helped the few who came and needed to do any catch-up work. I actually got in some personal counseling time today, too.

December 1

Reconvening from the Thanksgiving holidays we launched into pages 11, 12, and 13 today. The new California High School Equivalency test has just hit the news so I got some copies of the sample test, application instructions, etc., filled the students in on what it was about, some of the possible advantages and disadvantages of taking the test, and gave them some time to try out the sample and go over the answers. It finally turned into (1) raising some consumer interests, (2) a new glimmering on the usefulness of being able to write, and (3) a lesson on the correct way to write a business letter which I was surprised to find none of them had ever learned.

December 2

We worked on pages 14-16 today. I think this section is an almost hopeless task. People teach whole courses on the contributions of just one ethnic group to the U. S. Here we're asking the students in the space of just a few week, at most, to survey the contributions of all ethnic groups to the U. S. I'd think in a district that screams at least monthly of the need for multi-ethnic education, I'd have students come who have had a lot of exposure to this sort of thing--but I think they have had very little. I plan to help them by locating films on each ethnic group--enough to skim the surface--but this will have to be delayed, in part, for lack of available booking dates for some of what I want. Today we viewed Faces of Chinatown and ended with a discussion of the contributions of the Chinese and other oriental groups to the Bay Area. If I can ever figure time for it, next time around, there will have to be an all-day field trip here, to the Japanese Tea Garden and DeYoung Museum in Golden Gate Park, and maybe some visit to a martial arts school could be included. I'm finding that most have no acquaintance with these places although I could have sworn they surely would have.

December 3

Since I have been challenged on the suitability of the materials for use by senior high students, I took time today to administer the Gates Reading test to check levels. As students finished, I had them continue finding answers for pages 14-16. The results, by the way, showed I have exactly one student in the class whose reading level indicates she could handle a more difficult reading level--and she's been doing a great deal of outside reading. I think next time we get to this section of the book, I'll have my multi-ethnic literature books at hand and do a short literature unit from them. That might be a much more revealing way to tackle the understandings that people of all kinds have good ideas that everybody borrows. If my class were really all junior high students I might give a feast day, having groups prepare foods from all the major ethnic groups.

December 4 and 5

I was ill and out on these two days. I left detailed directions for a substitute to have the students write an essay on what it is to be Indian (personal definitions), leaving materials for the substitute to use to inspire this activity. On Friday, they were asked to choose books on Native Americans from my racks and spend the time getting into reading them with the end result to be book reports. The second activity came off. The first was a disaster.

December 8

We are still hung up on pages 14-16. This is taking too long. The further frustration is that the films I had requested on Blacks and Chicanos will not be available until much later. So we have to finish this out, later on, because I don't think the concept can be left to die by the wayside.

December 9

Having found the disaster of my writing assignment, I took today to do it over. One student had brought a poem with the kind of definition I was looking for. I had them read a set of student definitions that appeared in Scope a while back and I had saved, brought another one from The Five Tribes Journal, and the one on record by Ortega (Two Worlds). Results were better this time, but I'm obviously fighting the major battle that's common to my other classes that students would rather do almost anything than write from their own imaginations. I'll have to do some serious work on strategies to correct this.

December 10

I had students reading today from their books, for the reports, while I went around to each and conducted individual writing conferences. I tried to be both instructive and supportive. Think I did some good.

December 11

We spent today cooking an all-Indian menu for the Native American Club to sell at noon as a fund-raiser for money to support weekend camping-type field trips. Everyone worked and helped, all had a good time. The learning from this sort of activity comes when we get to the field trips which I always manage to fill with ecology, geography, geology, Indian plant uses, etc.

December 12--one more day given to reading in those books. All seem interested.

January 7

We headed for the library one period to get more information sources. Surprising development was that I need to teach card catalogue, Dewey decimal system, etc. That will have to be worked in. The group was small today and with one teacher and two librarians helping them, we went around the problem, but I'll clearly have to do something about it. The second period I began the Coronet series of filmstrips on American Indians. The one of the Great Plains will not be available until late so I'm deferring that section. We are going across the series, viewing the ones of the Northeast, the North Pacific Coast, the Southeast, and the Southwest. This is a long series, but it's good comparable information and suited to the purpose. (And a lot better than getting it from books or lectures.) Each regional set includes one sound filmstrip on homes, one on myths and ceremonies, one on history, one on lands and tribes, and one on arts and crafts. The sixth in each set will vary in topic. They have good information; students like them; they require few corrections and snide comments.

January 8

We continued our filmstrip series and showed the film Washoe (parts I and II) which brought up some interesting discussion of coming-of-age ceremonies that tied in nicely with the filmstrips.

January 9

We continued with the filmstrips and also saw the short film, Indian Influence in the United States which is merely acceptable but does raise the subject of place names so I followed that with the local angle from California Place Names--lots of interesting stories there relating to Indians!

January 12

We got in more of the filmstrips today. Students seemed to have trouble organizing the information so I made up a comparisons chart. I have asked them to hold any questions (in detail) about the columns for Great Plains and California until we can get the planned materials.

January 13

We viewed more of the filmstrips and also one, "Religion" from the Warren Schloat The American Indian set. We were given a two-filmstrip set which purported to be on regional music types to preview and decided to try it. We did, and agreed it was awful. Most of the songs were translated and not sung in traditional styles. None of us liked them. I distributed review sheets, reminded all that they had pretests worth using for review, discussed the schedule of upcoming finals, made various other announcements including a pitch to attend the weekend Career Awareness Conference in Sacramento. (Most went.)

January 14

Most went to Sacramento and evidently haven't recovered from the extra weekend work enough to get back to class yet. Those who came continued work on the remaining pages and did makeups on missed filmstrips.

January 15

Today was set aside for a field trip to the Oakland Museum to the California Indian Gallery and to view the multiple media slide show on California Indian Land Use.

January 19

I gave detailed directions for a final report, each student reporting on his or her own tribe. This time the report must include title page, bibliography, use of quotation marks, entries for interviews, and page form. I'm encouraging drafts to be submitted early for friendly editing but am dubious about whether that will happen. I also distributed a map of the removals to Oklahoma--for reference. Students who missed filmstrips were instructed to catch them today or tomorrow. The group was reminded all remaining pages and the final report are due Monday January 26 (last day of class before finals). The class was asked to work individually or in groups, using me for reference and resource, as needed, until Thursday. End-of-term doldrums have set in and people are being way too lax about coming, being anywhere near on time, and so forth. On the other hand, some who have cut too much are catching up by homework, working extra time such as lunch, and so on. I don't really anticipate any full-fledged failures.

January 20-21

The group is pretty much running itself right now and I'm just fielding questions and remembering how to be a reference librarian. I've been doing some reflection about the whole process and find I feel both good and bad about it. I feel good in that it looks like all students will legitimately pass. I like being in the role of "coach." I operate very nicely with a curriculum I have some faith in and am even getting good ideas writing this log. I know I'll manage several parts better next time. I feel, on the other hand, that attendance is not good enough, that students are often unreasonably late (even when they later are mad at themselves because they missed a film or trip, etc.) and that I did not require more outside reading. Perhaps the most worrisome thing is that some students in the group continue to attend no other class. We've tried several strategies to work that out; none worked. In the long run, the school won't tolerate that situation. I've listed the requirements for the course and found they meet the English curriculum and checked them for approval with the social studies department. They approve but don't really have an operational curriculum to use as a guide. But I continue to have nagging feelings I ought to try bringing the class along more quickly.

Miss Paul
7th Grade English
Ganado Junior High School

CONCLUSION ON "COOPERATION"

Until coming to Arizona last fall, my background in the area of Career Education was very slight. Over the ensuing months, I heard from those around the school that Career Education was considered to be an important part of the Arizona Public School system. When the junior high teachers at Ganado were given the opportunity to use the Native American Career Education materials in their classes, I felt that this would be something different to try. Truthfully, I had misgivings and felt that the two weeks I was planning to spend on the program could likely have negative results. Fortunately, I discovered my assumption to be wrong.

The unit titled "Cooperation," intrigued me from the beginning. The idea of my seventh graders cooperating seemed uproariously funny and yet this was definitely an area that demanded some time and effort. Initially, I planned to not present the unit with all of my five classes. Later I decided that they all needed an equal opportunity to receive the guidance the unit might give them. Each activity appeared to have something to offer most of my students and so for a two-week period, we began Unit Two (2).

The students were interested in the introduction of the unit, possibly only as a change from normal class procedures, or because they had heard their peers talk about Career Exploration class offered at Ganado Junior High. The first activity, "Getting It Together," was enjoyed the most by the classes. They managed to abide by the rules of silence, trying, and not grabbing puzzle pieces remarkably well, the only suggestion I would make is to specify that all the puzzle pieces be the same color. Mine were not, but it took a while for the students to notice that each puzzle in their group was a different color. Activity Two (2), as a follow-up to the first one, was satisfactory. Part of the time the questions raised were discussed in class; part of the time they were given as individual writing assignments.

The role-playing involved in the third activity was difficult for many of my students to comprehend or to even read their role sheets. They had little idea of what the positions of the various health department employees were. The inclusion of the different personal problems also seemed a little remote. Yet, the biggest hindrance was shyness and unwillingness to discuss the assigned problem. The highest class that I have comprehended the situation quite well yet, for at least one of the two groups in even that class discussion was nearly impossible. As a whole, the same class were very enthusiastic when another possible simulation of the U. N. was mentioned.

The ability of my highest class to read and comprehend a bit more and also, a higher degree of maturity than perhaps the majority of my other classes, was shown to be an advantage again in Activity Four (4), entitled "Problems, Problems, Problems." These students were quick to identify certain

related problems that would come up during class as either task, person-to-person, organization, personal, or society. In all my classes, the subject prejudice that I used, as suggested, to explain a society problem instigated some class discussion. I think that the activities revolving around the five kinds of group problems were worthwhile, although on a slightly difficult level for the majority of my students.

Activity Five (5) was dealt with in mainly class discussions. The readings, being excerpts from various articles, needed more explanation than given in the student book. I particularly liked the first reading about the sports. In a school where athletes are admired, it was beneficial to the students to be aware of different cultural values placed on sports. The second article dealing with the fishhook factory was also good because it exposed my Navajo students to another Indian tribe and also initiated discussion about their own customs. The questions following the excerpt from Susanne Anderson's Song of the Earth Spirit did not seem as related or understandable as the previous series of stories and questions. The fourth article I disliked more and more each period that I read it, so that I did not use it at all in the last class. I felt that it was highly slanted against the white culture, making it seem as if their members beat their children unmercifully instead of reprimanding them. No mention was made of the Indian mode of punishment or discipline. This bias detracted from the real intent of the article to distinguish between assumptions and realistic values and customs.

I must admit that Activity Six (6) was slighted because of a lack of time. I presented the Triple - A way of solving group conflicts to the class but groups were not re-organized. The activity was a good concluding choice and with more time and explanation on my part, would have been more beneficial.

Generally, I liked the "Cooperation" unit and its activities, questions, and follow-ups. The unit prompted and encouraged the students to think and ask questions about different careers and thus, got them to look beyond the present and to view their capabilities. The unit also served as a means of introducing new vocabularies and concepts into the English classroom as the words cooperation, conflict, awareness, analysis, action, and the names of the different group problems were discussed. A suggestion that I can offer is that this type of unit be presented over perhaps a three-week period with class times being occasionally divided between the Career Education materials and the regular subject matters. The idea of the Native American Career Education personnel to implement these various units into classrooms is a worthwhile one depending, of course, on their appropriateness and the natures and abilities of the students who will be giving up regular class time to work with them.

Comparison between the pre-test and the post-test will show some degree of learning to have occurred during the past two weeks. The students themselves have now at least become aware of the possibilities of group conflicts and cooperation.

Miss Peggy Bowen
8th Grade English/Social Studies
McDermitt Combined School

"From Idea to Product"

This is a good strong unit for the teaching of sequencing awareness.

The students seemed to enjoy going into great detail in their chart making. The more decisions and thus, the more action the better. Their favorite charting activities included the pencil sharpening and the water drinking sequences. I had two of my more dramatic students act out the activities so they were not your normal everyday actions. I then had the students chart what they had seen. I also used this activity to illustrate the fact that not everyone sees the same action in the same manner.

The class sequenced the making of a cradleboard from the reading. However, we did not make a cradleboard, (strong male feelings about woman's work), we did chart the making of a kite and then proceed to make kites and to fly them in a kite contest. (Each student's only requirement was that the kite had to be built according to his or her chart. If a step was left out they had to write it in red to remind them of the over sight. Some charts had little red others were red all over.)

The students enjoyed seeing the slides on the forest and the logging. In order for either activity to be charted both sets of slides had to be shown twice. I would have preferred to do this activity next to last so that an actual in the hand, doing something activity would have the final impact.

The game should be simple. The instructions should be in the teachers' book but not the students, (too many what we should do interpretations).

The units to date.

The ideas are good. The methods to put them across are flexible enough to work or to be changed for special situations to work.

Cautions.

There needs to be more consideration to be given to the not-all Indian classroom teacher. Some guidance is needed to incorporate all students not Just Indian if these units are going to be used in a mixed class situation. Incorporate others historical background. I know that knowledge of cooperation, sequencing, contributions to a country and etc., is beneficial to all.

If these units are handled incorrectly they can contribute to a bad, racially biased situation.

To make your units stronger and to make the work involved appear more valid to the student leave out the answer sheets. Instead, give more information, (especially in the history based units), for the student to find his or her own answer. Too often a student found the giving of an answer too easy because he had to do too little work for the answer. So you know easy come, easy go and not much retained. Leave the answer sheets as "possible" answers in the teacher's guide only.

Good things can come of these units if you have teachers who care. Look out for the by-the-book teacher. Use that teacher's guide to pound in the point about using your own good sense to make each activity fit each class, not each class made to fit each activity.

For this unit we took a trip to the mercury mine and saw the mining process in sequence from the pit to the product.

(We also discovered all the possible jobs related to mining and to a cafe in town.)

Mr. Jones
8th Grade Science
Ganado Junior High School

"Living With the Land"

I used this unit with my two lower grouped classes of Eighth Grade Life Science students. Reading levels ranged from second, through sixth grade. Because of this, I read most of the activities to the class. Since we finished our regular text before starting the unit, only three weeks were spent on it, instead of the 4-6 as originally planned.

Personally, I thought the ecological information was very good, but did not agree with some of the quoted statements. The illustrations were good and the activities well related to each other and content.

Students enjoyed playing the Ecology game, but when the questions were long or possible answers were in a, b, c, form, students usually become confused and just guessed at an answer rather than try to comprehend.

Some information contained in the unit had been studied earlier in the school year, such as the terms to define in some exercises, but it was good review.

Students showed interest when working the exercises, but often had difficulty in distinguishing the categories that the items belonged in, i.e., natural or man made. Because of this, they wanted to refer to the feedback section and copy, rather than try it on their own first. I would eliminate the feedback section in the students' text. Answers could be discussed in class later.

Over-all, those students with the better reading and writing ability, did show some improvement on the after questions, in the short time that we were able to spend on the units.

APPENDIX C

Analyses of pre-/posttest scores

for individual units

Far West Laboratory Pilot Test

Sample Pre/Posttest Summary Comparisons

Unit	Pretest				Posttest				
	N =	possible points	average score	% correct	N =	possible points	average score	% correct	gain
Cooperation	14	30	14½	*48*	15	33	22	*70*	*22*
Part of the Whole World	7	52	25	*48*	4	52	45½	*87*	*39*
From Idea to Product	12	33	15½	*47*	10	44	36	*82*	*35*
The Community	16	33	11	*33*	13	38	18	*47*	*14*
The Community in Transition	9	29	7½	*26*	13	38	17½	*46*	*20*
Putting Your Money to Work	18	28	8	*29*	18	28	20	*71*	*42*
Living with the Land	17	35	13½	*38*	20	28	15	*55*	*17*
Working for the People	12	35	9½	*27*	12	42	22	*53*	*26*
Planning	11	24	9	*37*	9	33	18½	*56*	*19*
Putting it all Together	11	20	11½	*57*	10	32	21	*66*	*11*
Getting Ready for Jobs	7	20	10½	*52*	4	30	22	*73*	*21*
The Career Fair	*this unit consists of an application activity which was evaluated by observation*								

C-1

N.I.T.R.C. Pilot Test

Pre/Posttest Percentage Comparisons

Unit	Pretest		Posttest		
	N =	average score %	N =	average score %	gain
Cooperation	11	*32.5*	15	*52*	*20.5*
Part of the Whole World	10	*31*	12	*42*	*11*
From Idea to Product	6	*20*	10	*41*	*21*
The Community	11	*31*	11	*45*	*14*
The Community in Transition	9	*26*	13	*46*	*20*
Putting your Money to Work	10	*18*	10	*52*	*46*
Living with the Land	11	*28*	11	*46*	*18*

APPENDIX D

NITRC Review Criteria

and Sample Review

E. Technical Review

The teachers guide and student booklet for each unit was submitted to a technical critique considering the following major items:

a. content appropriateness
b. outcomes/objectives
c. adequacy and consistency of materials
d. use of sound learning theory
e. versatility of materials and procedures
f. organization
g. format and style
h. practicality, conductability
i. social insensitivity
j. adequacy of career cluster coverage
k. adequacy of level of job distribution
l. occupation sex stereotype
m. career concept coverage
n. time and cost consideration
o. resource listing
p. reports of previous use and/or pilot testing
q. orientation and training materials and procedures
r. reporting materials and procedures
s. assessment materials and procedures

In order to insure an adequate review for each of the nineteen concerns, the following procedures were used:

Step One:

In the first reading of the materials, the reviewer completed an open ended form (Unit Technical Review-Appendix C) on each lesson, noting any problems identified as well as suggested revision ideas. In this critique, the reviewer considered items a. through i. as listed on the previous page. In addition, other concerns were noted directly on the side margins of the actual unit.

Step Two:

In a second reading of each unit, the reviewer completed a form on several aspects (items j. through m.) regarding unit coverage (Appendix D). A frequency count of career cluster, level of occupations, and male/female occupational listing was obtained. In addition, the reviewer identified major career elements to which the unit related.

Step Three:

In a third reading of each unit, the reviewer identified those resources which an instructor must have in order to teach the unit as well as those resources which would be nice to have but not mandatory. (Appendix E)

Step Four:

The reviewer completed all sections (except number 2)

of the form entitled Technical Checklist for Reviewing Instructional Products (Appendix F). This instrument covered items b, c, e, f, i, n, p, q, and r. Some of these items were also covered in Step One.

Step Five:

The assessment instruments (item s) were the last set of material critiqued. The reviewer completed the forms titled Technical Review of Evaluation Tools for Each Unit - Part I, Part II (Appendix G). On Part I, the reviewer noted where each test item related to the material and judged its adequacy. In addition, the pre- and posttest items were compared for replication qualities. On Part II, the reviewer noted if there were areas which had not been tested which it would appear were important enough for testing. Also, a judgement was made whether some areas which were being tested perhaps should not be tested.

Step Six:

The reviewer then completed section 2 of the form entitled Technical Checklist for Reviewing Instructional Products (Appendix F).

Step Seven:

The reviewer noted on a separate piece of paper any additional concerns or comments which were not covered in steps one through six.

UNIT V THE COMMUNITY IN TRANSITION

Overall, Unit V is a very good unit in terms of motivating activities, students utilizing classroom skills to solve real problems, and group problems. The unit does a good job in looking at several dimensions of one's job; e.g., activity 2 students are exposed to the thoughts a person is having when he/she is considering an occupation. These are not the "usual" considerations, but the psychological dimensions, social dimensions, and those areas to which students are not exposed. Unit V also encourages students to study with depth, future societal needs and growth patterns.

Unit V's evaluation procedure is different than has been utilized in any other unit. The students critique each other's products with respect to its ability to be placed into a real life setting. The pre- and posttest could do a better job assessing students knowledge of the material. For example, question #9 does not assess students learnings and should be rewritten. Basically the test is sound and well written. The unit also does a good job in mentioning utilization of community resources. According to the teachers and reviewers, this is one of the better units in the series.

The following presents specific areas of concern and suggested revisions.

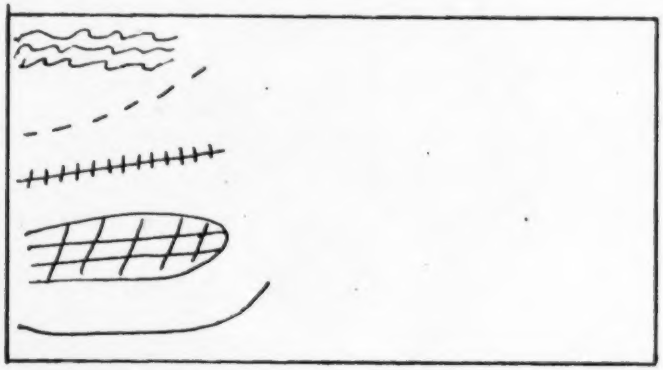
Location of Concern	Concern	Suggested Revision
Foreword, paragraph 3	In an earlier unit, attention was made to what was believed to be an inaccurate statement. Reasons were given for believing the statement to be inaccurate. This unit reinforces that belief. The statement in question is: "In these communities, as in underdeveloped.....independence."	Now read paragraph 2 in Procedure on Page 17, and paragraph 2, Activity 1, Exercise 2 on page 42. If the suggested revision was not considered then, it should be now and the foreword in each unit changed. See, also, page 10, Introducing the Book, paragraph 2, last sentence.
Page 17, Exercise 1	Does not list where students studies definitions previously.	Unit 1, Activity 1 Unit 1, Activity 5
Page 18, Exercise 3, Gameboard, page 19	Page number is missing.	Page numbers should be 24-27.
Page 18, Exercise 2	a) this would be an opportunity for students to do the exercise individually, b) the activity does not utilize enough media.	Add the following paragraph: You may wish to tape record "The Basketmakers" on a cassette recorder so that students may hear it on an individual basis rather than a total group basis. This could be a valuable reading exercise if the student follows his/her written script as he/she hears the recording.
Page 20, Scoting	Many students may have limited abilities in math.	Have an "expert" in each group tally the "Individual Tally sheets."

Location of Concern	Concern	Suggested Revision
Page 21, Scoring	Using the blackboard to demonstrate the use of scoring sheets.	Make a transparency for this demonstration.
Page 22, Exercise 4, last paragraph	Need to go over answers in class.	Instructor goes over answers in class.
Page 22, Additional Activities	If these three things are listed as additional activities, they should be related to the Activity 1 objective. Taking the class on a hike or making a diorama may not add to purpose.	Eliminate last two suggestions or relate to objective in some way.
Page 30, Exercise Title	Does not tell what the student is to do.	Exercise 1, Read and Answer: A History of Golden Valley
Page 36, Exercise Title	Does not tell what the student is to do.	Exercise 2, Reading: Jimmy Bowman Comes Home
Page 46, Exercise Title	Does not tell what the student is to do.	Exercise 1, Read and Answer: Growing into a City.
Page 52, Exercise Title	Does not tell what the student is to do.	Exercise 2, Playing a Game: The Arrow Express Service
Page 56, number 10	The game might be rather slow.	What about the possibility of using 3 or 4 dice instead of 2, so the "driver" would get gas faster?
Page 47, Exercise 3, last line, page 48	Page number is missing.	Page number is 49.
Page 47, Exercise 3, paragraph 2	Typographical error "you".	Should read "your".

Location of Concern	Concern	Suggested Revision
Page 48, paragraph 1	Scoring of game - students are not told how many trade cards are in a set.	Should read, "...but when you have all three cards in the set..."
Page 59, Objective	Needs revision.	The student will describe a possible cultural change, resulting from given environmental change; describe similarities and differences of hunter-gatherer and agricultural cultures.
Page 59-60, Procedure	Extend use of examples.	The instructor should mention all and "add other examples of seasonal or other environmental adaptions.
Page 60, Exercise 1, last paragraph	Option regarding a general class discussion.	The instructor should have a "general class discussion."
Page 60, Exercise 2, see page 61	Sentence, "You probably should discuss the reading and the picture."	Remove the option, probably, and discuss the reading and the picture.
Page 60, Exercise 2, see page 61, subsection 4	"If you wish, ask students to write a short....questions."	Provide the students with an opportunity to write the essay.
Page 61, Exercise 3, see page 62	Use of the word "Anglo."	Could you use "non-Indian"?
Page 62, Additional Activities	The use of ...	The instructor should encourage and provide students with opportunities to participate in any and all of these Additional Activities.

Location of Concern	Concern	Suggested Revision
Page 65, Activity 2, line 5	"hardy" --- no such word.	hearty
Page 70, Activity 2	Sex bias, "so the people of the clan and their villager wives..." implies that the people of the clan are all men.	"So the people of the clan, with their children born in the village, move south."
Page 74, point 6	This is confusing to have this point (instructions to students) at close of Phil Reno's article.	Start point 6 on a new page.
Page 75, Committee Members Instructions	It seems that the committee members do not have enough information to make a decision about how many stores are needed, (for example). How can the Housing Advisor decide whether single family houses, apartments, etc., would be more appropriate.	
Page 81, Exercise 1, see page 82	The effect of Europeans on changing lifestyle.	Add: The lifestyle was changing also because of the influences of the "Latinos" to the south.
Page 81, Exercise 1, see page 82	Use of the identification "white man" here and 8 other places in the Student Booklet.	Could you use "non-Indian."
Page 82, Exercise 3	The option, "You should probably go over the answers in class."	It would be helpful if the answers were discussed in class.
Page 83, Additional Activities	The use of Additional Activities.	The instructor should encourage interested and energetic students to participate in any and all of the Additional Activities.

Location of Concern	Concern	Suggested Revision
Page 84, Exercise 1	The sentence, "They had a different religion."	Actually, they had many different religions.
Page 84, Exercise 1, see page 86	Reference to Spanish colonies and churches.	For purposes of this exercise no churches or missions may have been close by, but the instructor should remind the students that dozens of missions were established in the Southwest. They have endured and Indians may have been among the principle beneficiaries.
Page 92, Activity 3, line 3	B.I.A. may not be recognized by all participants.	Should read, "Bureau of Indian Affairs."
Page 104, Exercise 1	The three requirements of a city are not as steadfast as the book implies.	Add the following: "Direct student attention to the statement which names the three requirements for a city's existence. Challenge them to test the statement's validity. e.g., Can you think of a city which does not have a lot of natural resources? How large is a large population?"
Page 103, Objective	Needs revision.	The student will describe what factors might exist for a small town to change to a city; and contrast the way people meet needs in small town vs. city.
Page 104-105, Game materials preparation	Game materials will tear easily.	Cover game materials with clear contact paper.
Page 106, Exercise 3	Use of "Anglo" is offensive.	Use word, "non-Indian."

Location of Concern	Concern	Suggested Revision
Page 107, paragraph 2	"While it is possible that women might serve as drivers, in such a situation it is more likely that women would contribute to clerical services." This is not a true statement.	Eliminate statement from unit.
Page 133, (map)	There are markings on the map which need explanations.	The maps need a scale to define the following symbols: 
Page 142, "Opinion Question"	This "opinion question's" significance lies in the fact that it asks students to decide whether men or women are suitable for the fiften occupations listed. The presence of this question in the activity implies that some of the occupations listed are not suitable for men or women.	This item should be eliminated from the unit.

Location of Concern	Concern	Suggested Revision
Page 152, Exercise 1	The option, "you may wish to discuss the answers in class."	Remove the option - "Discuss the answers in class."
Page 152, Exercise 2, (see page 153) subsection 4	Sentence - "If you can, give local examples..."	Encourage the students to collect pictures of...
Page 152	"If possible, have a copy of Indian Industrial Parks for students to look at."	The instructor should make every effort to get it or paraphrases should be in the Guide.
Page 155, Additional Activities	These are excellent as are the others in this entire unit.	Encourage and provide students with opportunities to engage in any or all of these activities.
Page 150, Objective	Needs to be clarified.	The student will construct and then evaluate a plan for a new community, given a role playing situation.
Page 153, Exercise 1, paragraph 5	Some teachers may not understand that several committees will be working on the same problem.	Add the following after sentence two of paragraph 5: "Of course, you will have several identical committees working depending on the number of students in your classroom."
Page 154, Exercise 2	This activity is sophisticated and takes a great deal of independent conceptualizing on the part of the learner.	Alternative activities for the slower learner need to be suggested. Add the following paragraph at the end of exercise two suggestion, "This activity can be very meaningful for students, particularly those who have had a background of some kind in this area. The activities encourage the student to think independently. You may wish to have less motivated students, or those who need more structure in learning environment do alternative activities; e.g., act as assistants to committee members, do researc for committee members, etc."

APPENDIX E

BIA Schools Which Will

Receive NACE Materials

SCHOOLS WHICH WILL BE GIVEN COPIES OF THE INDIAN CAREER EDUCATION MATERIALS DEVELOPED BY THE FAR WEST LABORATORY FOR EDUCATIONAL RESEARCH AND DEVELOPMENT

Standing Rock Indian School
Fort Yates, ND 58538

Wahpeton Indian School
Wahpeton, ND 58075

Cheyenne-Eagle Butte Ind. Sch.
Eagle Butte, SD 57627

Flandreau Indian School
Flandreau, S. D. 57028

Oglala Indian School
Pine Ridge, S. D. 57770

Albuquerque Indian School
1000 Menaul Blvd., NW
Albuquerque, N.M.

Concho Indian School
Concho, OK 73022

Chilocco Indian School
Chilocco, OK 74635

Fort Sill Indian School
Lawton, OK 73501

Greasewood Boarding School
Ganado, AZ 86505

Upper Kaibeto Boarding School
Tonalea, AZ 86044

Kayenta Boarding School
Kayenta, AZ 86033

Kinlichee Boarding School
Ganado, AZ 86505

Leupp Boarding School
Winslow, AZ 86047

Many Farms High School
Many Farms, AZ 86503

Riverside Indian School
Anadarko, OK 73005

Boque Chitto Indian School
Rt. 2
Philadelphia, Miss. 39350

Conehatta Indian School
Conehatta, Miss. 39057

Choctaw Central Indian School
Philadelphia, Miss. 39350

Mt. Edgecumbe Boarding School
Mt. Edgecumbe, Alaska 99835

Seneca Indian School
Wyandotte, OK 74370

Sequoyah Indian School
Tahlequah, OK 74464

Chinle Boarding School
Many Farms, AZ 86503

Dilcon Boarding School
Winslow, AZ 86047

Tohatchi Boarding School
Tohatchi, N.M. 87325

Wingate Boarding School
Ft. Wingate, N.M. 87316

Wingate High School
Ft. Wingate, N.M. 87316

Intermountain Indian School
Brigham City, Utah 84302

Keams Canyon Boarding School
Keams Canyon, AZ 86304

Phoenix Indian School
Box 7188
Phoenix, AZ 85011

Tuba City High School
Tuba City, AZ 86045

Shonto Boarding School
Shonto, AZ 86044

Teecnospos Boarding School
Teecnospos, AZ 86514

Toyei Boarding School
Ganado, AZ 86505

Tuba City Boarding School
Tuba City, AZ 86045

Chuska Boarding School
Tohatchi, N.M. 87325

Crownpoint Boarding School
Crownpoint, N.M. 87313

Dzilth-Na-O-Dilth-Hle School
Bloomfield, N.M. 87413

Sanostee Boarding School
Shiprock, N.M. 87420

Shiprock Boarding School
Shiprock, N.M. 87420

Toadlena Boarding School
Toadlena, N.M. 87324

Lower Brule Day School
Lower Brule, So. Dak. 57548

Crazy Horse Day School
Wanblee, So. Dak. 57577

Loneman Day School
Oglala, So. Dak. 57764

Porcupine Day School
Porcupine, So. Dak. 57772

Little Eagle Day School
Little Eagle, So. Dak.

Santa Rosa BIA School
Sells, AZ 85634

Theodore Roosevelt BIA School
Ft. Apache, AZ 85926

Stewart Indian School
Stewart, Nevada 89437

Sherman Indian High School
Riverside, Calif. 92503

Chemawa Indian School
Chemawa, Oregon 97306

Bridger Day School
Howes, S. Dak. 57748

Cherry Creek Day School
Cherry Creek, S. Dak. 57622

Red Scaffold Day School
Faith, So. Dak. 57626

White Horse Day School
White Horse, So. Dak. 57661

Twin Buttes Day School
Halliday, North Dakota 58636

White Shield Day School
Roseglen, N. Dak. 58775

American Horse Day School
Allen, So. Dak. 57714

Little Wound Day School
Kyle, So. Dak. 57752

Manderson Day School
Manderson, So. Dak. 57756

Bullhead Day School
Bullhead, So. Dak. 57621

Turtle Mountain Community School
Belcourt, No. Dak. 58316

Isleta BIA School
Isleta, N.M. 87022

San Felipe BIA School
Algodones, N. M. 87001

Cherokee Central
Cherokee, N. C. 28719

Red Water Day School
Carthage, Miss. 39051

Akiak Day School
Akiak, Alaska 99552

Barter Island
Barter Island, AK 99747

Brevig Mission
Brevig Mission, AK 99563

Chifornak Day School
Chifornak, AK 99561

Eek Day School
Eek, AK 99578

Emmonak Day School
Emmonak, Alaska

Golovin Day School
Golovin, AK 99762

Grayling Day School
Grayling, AK 99590

Kalskag Day School
Kalskag, AK 99607

Kiana Day School
Kiana, AK 99749

Klukwan Day School
Klukwan, AK 99831

Kotzebue Day School
Kotzebue, AK 99752

Kwigillingok Day School
Kwigillingok, AK 99622

Mekoryuk Day School
Mekoryuk, AK 99630

Laguna BIA School
Laguna, New Mex. 87026

Zia BIA School
San Ysidro, N.M. 87053

Chitimacha Day School
Jeanerett, LA 70544

Akiachak Day School
Akiachak, Alaska 99551

Alakanuk Day School
Alakanuk, Alaska 99554

Beaver Day School
Beaver, Alaska 99724

Chevak Day School
Chevak, AK 99561

Diomede Day School
Diomede, AK 99762

Elim Day School
Elim, AK 99739

Gambell Day School
Gambell, AK 99742

Goodnews Bay
Goodnews Bay, AK 99589

Hooper Bay Day School
Hooper Bay, Alaska 99604

Kasigluk Day School
Kasigluk, AK 99609

Kipnuk Day School
Kipnuk, AK 99614

Kotlik Day School
Kotlik, AK 99620

Kwethluk Day School
Kwethluk, AK 99621

Lower of Kalskag School
Lower Kalskag, AK 99626

Mountain Village School
Mountain Village, AK 99632

Napakiak Day School
Napakiak, AK 99634

Newtok Day School
Newtok, AK 99636

Nunapitchuk Day School
Nunapitchuk, AK 99641

Pilot Station
Pilot Station, AK 99650

St. Michael Day School
St. Michael, AK 99659

Scammon Bay Day School
Scammon Bay, AK 99662

Shaktoolik Day School
Shaktoolik, AK 99771

Stebbins Day School
Stebbins, AK 99671

Tetlin Day School
Tetlin, AK 99779

Tuluksak Day School
Tuluksak, AK 99679

Unalakleet Day School
Unalakleet, AK 99684

Wainwright Day School
Wainwright, AK 99782

Cibecue Day School
Cibecue, AZ 85901

Hotevilla Day School
Hotevilla, AZ 86030

Mandaree Day School
New Town, N. Dak. 58763

St. Francis Day School
St. Francis, S. Dak. 57572

Ramah Navajo
Ramah, N. M. 87321

Napaskiak Day School
Napaskiak, AK 99635

Nightmute Day School
Toksook Bay, AK 99637

Oscarville Day School
Napaskiak, AK 99635

Quinhagak Day School
Quinhagak, AK 99655

Savoonga Day School
Savoonga, AK 99769

Shageluk Day School
Shageluk, AK 99665

Sheldon Point Day School
Sheldon Point, AK 99666

Tanunak Day School
Tanunak, AK 99681

Toksook Bay Day School
Toksoon Bay, AK 99637

Tuntutuliak Day School
Tuntutuliak, AK 99680

Venetie Day School
Venetie, AK 99781

Cove Day School
Shiprock, N. Mex. 87420

Hopi Day School
Oraibi, AZ 86039

Crow Creek Day School
Ft. Thompson, S. Dak 57339

Theodore Jamerson Day School
Bismarck, N. Dak. 58501

Ojibwa Day School
Belcourte, N. Dak. 58316

Hammon Day School
Hammon, OK 73650

Busby Day School
Busby, Montana 59016

Rough Rock Day School
Chinle, AZ 86503

Wyoming Day School
Ethete, Wyoming 82520